



Sequence Listing

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Filvaroff, Ellen  
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Goddard, Audrey  
Godowski, Paul J.  
Grimaldi, Christopher J.  
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Watanabe, Colin K.  
Wood, William I.

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tggaatcagc tcaggactgc cattggacta tggagtgcac caaagagaat 1300  
gcccttctcc ttattgtaac cctgtctgga tcctatcctc ctacctcaa 1350  
agcttcccac ggcctttcta gcctggctat gtcctaataa tatccactg 1400  
ggagaaagga gttttgcaaa gtgcaaggac ctaaaacatc tcatcagtat 1450  
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 aaccttaatt tattattaac atacctaaga agtacattgt tacctctata 2250  
 taccaaagca catttttaaaa gtgccattaa caaatgtatc actagccctc 2300  
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 aattaaagca tttagaaaac tt 2372

<210> 6  
 <211> 322  
 <212> PRT  
 <213> Homo Sapien

<400> 6  
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 Ser Ile Gln Val Ser Cys Arg Ile Met Gly Ile Thr Leu Val Ser  
 35 40 45  
 Lys Lys Ala Asn Gln Gln Leu Asn Phe Thr Glu Ala Lys Glu Ala  
 50 55 60  
 Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val Glu  
 65 70 75  
 Thr Ala Leu Lys Ala Ser Phe Glu Thr Cys Ser Tyr Gly Trp Val  
 80 85 90  
 Gly Asp Gly Phe Val Val Ile Ser Arg Ile Ser Pro Asn Pro Lys  
 95 100 105  
 Cys Gly Lys Asn Gly Val Gly Val Leu Ile Trp Lys Val Pro Val  
 110 115 120  
 Ser Arg Gln Phe Ala Ala Tyr Cys Tyr Asn Ser Ser Asp Thr Trp  
 125 130 135

Thr Asn Ser Cys Ile Pro Glu	Ile Ile Thr Thr Lys Asp Pro Ile	140	145	150
Phe Asn Thr Gln Thr Ala Thr	Gln Thr Thr Glu Phe Ile Val Ser	155	160	165
Asp Ser Thr Tyr Ser Val Ala	Ser Pro Tyr Ser Thr Ile Pro Ala	170	175	180
Pro Thr Thr Thr Pro Pro Ala	Pro Ala Ser Thr Ser Ile Pro Arg	185	190	195
Arg Lys Lys Leu Ile Cys Val	Thr Glu Val Phe Met Glu Thr Ser	200	205	210
Thr Met Ser Thr Glu Thr Glu	Pro Phe Val Glu Asn Lys Ala Ala	215	220	225
Phe Lys Asn Glu Ala Ala Gly	Phe Gly Gly Val Pro Thr Ala Leu	230	235	240
Leu Val Leu Ala Leu Leu Phe	Phe Gly Ala Ala Ala Gly Leu Gly	245	250	255
Phe Cys Tyr Val Lys Arg Tyr	Val Lys Ala Phe Pro Phe Thr Asn	260	265	270
Lys Asn Gln Gln Lys Glu Met	Ile Glu Thr Lys Val Val Lys Glu	275	280	285
Glu Lys Ala Asn Asp Ser Asn	Pro Asn Glu Glu Ser Lys Lys Thr	290	295	300
Asp Lys Asn Pro Glu Glu Ser	Lys Ser Pro Ser Lys Thr Thr Val	305	310	315
Arg Cys Leu Glu Ala Glu Val		320		

<210> 7  
 <211> 2586  
 <212> DNA  
 <213> Homo Sapien

<400> 7  
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 ccgcagcgca actcgggtcca gtcggggcgg cggctgcggg cgcagagcgg 150  
 agatgcagcg gcttggggcc accctgctgt gctgctgct ggcgggcggc 200  
 gtccccacgg ccccgcgcc cgctccgacg gcgacctcgg ctccagtcaa 250  
 gcccgggccc gctctcagct acccgcagga ggaggccacc ctcaatgaga 300



tgttccgcga ggttgaggaa ctgatggagg acacgcagca caaattgcgc 350  
 agcgcggtgg aagagatgga ggcagaagaa gctgctgcta aagcatcatc 400  
 agaagtgaac ctggcaaact tacctccag ctatcacaat gagaccaaca 450  
 cagacacgaa ggttggaat aataccatcc atgtgcaccg agaaattcac 500  
 aagataacca acaaccagac tggacaaatg gtcttttcag agacagttat 550  
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gatctcagag gctcagagac tgcaagctgc ttgcccaagt cacacagcta 1900  
gtgaagacca gagcagtttc atctggttgt gactctaagc tcagtgtctt 1950  
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gttctcacag tgtggggcag ccgtccttct aatgaagaca atgatattga 2150  
cactgtccct ctttggcagt tgcattagta actttgaaag gtatatgact 2200  
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caattatcaa ccacgtggag aaaatcaaac cgagcagggc tgtgtgaaac 2350  
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<210> 8  
<211> 350  
<212> PRT  
<213> Homo Sapien

<400> 8  
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Ala Val Pro Thr Ala Pro Ala Pro Ala Pro Thr Ala Thr Ser Ala  
20 25 30  
Pro Val Lys Pro Gly Pro Ala Leu Ser Tyr Pro Gln Glu Glu Ala  
35 40 45  
Thr Leu Asn Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp  
50 55 60  
Thr Gln His Lys Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu  
65 70 75  
Glu Ala Ala Ala Lys Ala Ser Ser Glu Val Asn Leu Ala Asn Leu

80							85							90		
Pro	Pro	Ser	Tyr	His	Asn	Glu	Thr	Asn	Thr	Asp	Thr	Lys	Val	Gly		
				95					100					105		
Asn	Asn	Thr	Ile	His	Val	His	Arg	Glu	Ile	His	Lys	Ile	Thr	Asn		
				110					115					120		
Asn	Gln	Thr	Gly	Gln	Met	Val	Phe	Ser	Glu	Thr	Val	Ile	Thr	Ser		
				125					130					135		
Val	Gly	Asp	Glu	Glu	Gly	Arg	Arg	Ser	His	Glu	Cys	Ile	Ile	Asp		
				140					145					150		
Glu	Asp	Cys	Gly	Pro	Ser	Met	Tyr	Cys	Gln	Phe	Ala	Ser	Phe	Gln		
				155					160					165		
Tyr	Thr	Cys	Gln	Pro	Cys	Arg	Gly	Gln	Arg	Met	Leu	Cys	Thr	Arg		
				170					175					180		
Asp	Ser	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp	Gly	His	Cys		
				185					190					195		
Thr	Lys	Met	Ala	Thr	Arg	Gly	Ser	Asn	Gly	Thr	Ile	Cys	Asp	Asn		
				200					205					210		
Gln	Arg	Asp	Cys	Gln	Pro	Gly	Leu	Cys	Cys	Ala	Phe	Gln	Arg	Gly		
				215					220					225		
Leu	Leu	Phe	Pro	Val	Cys	Thr	Pro	Leu	Pro	Val	Glu	Gly	Glu	Leu		
				230					235					240		
Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu		
				245					250					255		
Leu	Glu	Pro	Asp	Gly	Ala	Leu	Asp	Arg	Cys	Pro	Cys	Ala	Ser	Gly		
				260					265					270		
Leu	Leu	Cys	Gln	Pro	His	Ser	His	Ser	Leu	Val	Tyr	Val	Cys	Lys		
				275					280					285		
Pro	Thr	Phe	Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu		
				290					295					300		
Pro	Arg	Glu	Val	Pro	Asp	Glu	Tyr	Glu	Val	Gly	Ser	Phe	Met	Glu		
				305					310					315		
Glu	Val	Arg	Gln	Glu	Leu	Glu	Asp	Leu	Glu	Arg	Ser	Leu	Thr	Glu		
				320					325					330		
Glu	Met	Ala	Leu	Gly	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Leu		
				335					340					345		
Gly	Gly	Glu	Glu	Ile												
				350												

<210> 9

<211> 1395  
<212> DNA  
<213> Homo Sapien

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tgtgctctt ccagggtac tcatccaaag gcctaatacca acgttctgtc 150  
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ggtactggcc ctgggccaat gcgtcctcgc tggagccttt gcctccttct 250  
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gaggcaggag aatcgcttga acccgggagg cagaggttgc agtgagccga 1300

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aaacaaacaa acaaaaagat tttattaaag atattttgtt aactc 1395

<210> 10

<211> 321

<212> PRT

<213> Homo Sapien

<400> 10

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Asn	Thr	Ser	Cys	Asn	Pro	Thr	Ala	His	Leu	Val	Asn	Ser	Ser	Cys
				20					25					30

Pro	Gly	Leu	Met	Cys	Val	Phe	Gln	Gly	Tyr	Ser	Ser	Lys	Gly	Leu
				35					40					45

Ile	Gln	Arg	Ser	Val	Phe	Asn	Leu	Gln	Ile	Tyr	Gly	Val	Leu	Gly
				50					55					60

Leu	Phe	Trp	Thr	Leu	Asn	Trp	Val	Leu	Ala	Leu	Gly	Gln	Cys	Val
				65					70					75

Leu	Ala	Gly	Ala	Phe	Ala	Ser	Phe	Tyr	Trp	Ala	Phe	His	Lys	Pro
				80					85					90

Gln	Asp	Ile	Pro	Thr	Phe	Pro	Leu	Ile	Ser	Ala	Phe	Ile	Arg	Thr
				95					100					105

Leu	Arg	Tyr	His	Thr	Gly	Ser	Leu	Ala	Phe	Gly	Ala	Leu	Ile	Leu
				110					115					120

Thr	Leu	Val	Gln	Ile	Ala	Arg	Val	Ile	Leu	Glu	Tyr	Ile	Asp	His
				125					130					135

Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys
				140					145					150

Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe
				155					160					165

Leu	Asn	Arg	Asn	Ala	Tyr	Ile	Met	Ile	Ala	Ile	Tyr	Gly	Lys	Asn
				170					175					180

Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn
				185					190					195

Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu
				200					205					210

Phe	Phe	Gly	Lys	Leu	Leu	Val	Val	Gly	Gly	Val	Gly	Val	Leu	Ser
				215					220					225

Phe	Phe	Phe	Phe	Ser	Gly	Arg	Ile	Pro	Gly	Leu	Gly	Lys	Asp	Phe
				230					235					240

Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser
				245					250					255
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe
				260					265					270
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu
				275					280					285
Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys
				290					295					300
Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp
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Asn	Lys	Lys	Arg	Lys	Lys									
				320										

<210> 11  
 <211> 1901  
 <212> DNA  
 <213> Homo Sapien

<400> 11  
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 ccgtgagccg cctcatcttc acgttcttcc tcttcctggg ggtgctgggtg 200  
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 ctgggtgtgt gaggaggggg ccgggatccc caccgtcctg cagggccaca 300  
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 gccacggcgg ccttcttctt cttctttttt accctgctca tgctctgcgt 400  
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 gacggctcct tcaccaacat ctggttctac ttcggcgtcg tgggctcctt 550  
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 tacgcaggcc tcttcttctt cactctcttc ttctacttgc tgtcgatcgc 700  
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a 1901

<210> 12

<211> 457

<212> PRT

<213> Homo Sapien

<400> 12

Met	Gly	Ala	Cys	Leu	Gly	Ala	Cys	Ser	Leu	Leu	Ser	Cys	Ala	Ser
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Cys	Leu	Cys	Gly	Ser	Ala	Pro	Cys	Ile	Leu	Cys	Ser	Cys	Cys	Pro
			20						25				30	

Ala	Ser	Arg	Asn	Ser	Thr	Val	Ser	Arg	Leu	Ile	Phe	Thr	Phe	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35							40				45			
Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly
				50					55					60
Val	Glu	Ser	Gln	Leu	Tyr	Lys	Leu	Pro	Trp	Val	Cys	Glu	Glu	Gly
				65					70					75
Ala	Gly	Ile	Pro	Thr	Val	Leu	Gln	Gly	His	Ile	Asp	Cys	Gly	Ser
				80					85					90
Leu	Leu	Gly	Tyr	Arg	Ala	Val	Tyr	Arg	Met	Cys	Phe	Ala	Thr	Ala
				95					100					105
Ala	Phe	Phe	Phe	Phe	Phe	Phe	Thr	Leu	Leu	Met	Leu	Cys	Val	Ser
				110					115					120
Ser	Ser	Arg	Asp	Pro	Arg	Ala	Ala	Ile	Gln	Asn	Gly	Phe	Trp	Phe
				125					130					135
Phe	Lys	Phe	Leu	Ile	Leu	Val	Gly	Leu	Thr	Val	Gly	Ala	Phe	Tyr
				140					145					150
Ile	Pro	Asp	Gly	Ser	Phe	Thr	Asn	Ile	Trp	Phe	Tyr	Phe	Gly	Val
				155					160					165
Val	Gly	Ser	Phe	Leu	Phe	Ile	Leu	Ile	Gln	Leu	Val	Leu	Leu	Ile
				170					175					180
Asp	Phe	Ala	His	Ser	Trp	Asn	Gln	Arg	Trp	Leu	Gly	Lys	Ala	Glu
				185					190					195
Glu	Cys	Asp	Ser	Arg	Ala	Trp	Tyr	Ala	Gly	Leu	Phe	Phe	Phe	Thr
				200					205					210
Leu	Leu	Phe	Tyr	Leu	Leu	Ser	Ile	Ala	Ala	Val	Ala	Leu	Met	Phe
				215					220					225
Met	Tyr	Tyr	Thr	Glu	Pro	Ser	Gly	Cys	His	Glu	Gly	Lys	Val	Phe
				230					235					240
Ile	Ser	Leu	Asn	Leu	Thr	Phe	Cys	Val	Cys	Val	Ser	Ile	Ala	Ala
				245					250					255
Val	Leu	Pro	Lys	Val	Gln	Asp	Ala	Gln	Pro	Asn	Ser	Gly	Leu	Leu
				260					265					270
Gln	Ala	Ser	Val	Ile	Thr	Leu	Tyr	Thr	Met	Phe	Val	Thr	Trp	Ser
				275					280					285
Ala	Leu	Ser	Ser	Ile	Pro	Glu	Gln	Lys	Cys	Asn	Pro	His	Leu	Pro
				290					295					300
Thr	Gln	Leu	Gly	Asn	Glu	Thr	Val	Val	Ala	Gly	Pro	Glu	Gly	Tyr
				305					310					315
Glu	Thr	Gln	Trp	Trp	Asp	Ala	Pro	Ser	Ile	Val	Gly	Leu	Ile	Ile



320					325					330				
Phe	Leu	Leu	Cys	Thr	Leu	Phe	Ile	Ser	Leu	Arg	Ser	Ser	Asp	His
				335					340					345
Arg	Gln	Val	Asn	Ser	Leu	Met	Gln	Thr	Glu	Glu	Cys	Pro	Pro	Met
				350					355					360
Leu	Asp	Ala	Thr	Gln	Gln	Gln	Gln	Val	Ala	Ala	Cys	Glu		
				365					370					375
Gly	Arg	Ala	Phe	Asp	Asn	Glu	Gln	Asp	Gly	Val	Thr	Tyr	Ser	Tyr
				380					385					390
Ser	Phe	Phe	His	Phe	Cys	Leu	Val	Leu	Ala	Ser	Leu	His	Val	Met
				395					400					405
Met	Thr	Leu	Thr	Asn	Trp	Tyr	Lys	Pro	Gly	Glu	Thr	Arg	Lys	Met
				410					415					420
Ile	Ser	Thr	Trp	Thr	Ala	Val	Trp	Val	Lys	Ile	Cys	Ala	Ser	Trp
				425					430					435
Ala	Gly	Leu	Leu	Leu	Tyr	Leu	Trp	Thr	Leu	Val	Ala	Pro	Leu	Leu
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				455										

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 <211> 1572  
 <212> DNA  
 <213> Homo Sapien

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 <211> 234  
 <212> PRT  
 <213> Homo Sapien

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 Thr Gln Leu Met Ala Arg Ile Glu Ser Tyr Glu Gly Arg Glu Lys  
 35 40 45  
 Lys Gly Ile Ser Asp Val Arg Arg Thr Phe Cys Leu Phe Val Thr

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65							70				75			
Val	Asn	Gly	Gly	Ile	Glu	Asn	Thr	Leu	Glu	Lys	Glu	Val	Met	Gln
80							85				90			
Tyr	Asp	Tyr	Tyr	Ser	Ser	Tyr	Phe	Asp	Ile	Phe	Leu	Leu	Ala	Val
95							100				105			
Phe	Arg	Phe	Lys	Val	Leu	Ile	Leu	Ala	Tyr	Ala	Val	Cys	Arg	Leu
110							115				120			
Arg	His	Trp	Trp	Ala	Ile	Ala	Leu	Thr	Thr	Ala	Val	Thr	Ser	Ala
125							130				135			
Phe	Leu	Leu	Ala	Lys	Val	Ile	Leu	Ser	Lys	Leu	Phe	Ser	Gln	Gly
140							145				150			
Ala	Phe	Gly	Tyr	Val	Leu	Pro	Ile	Ile	Ser	Phe	Ile	Leu	Ala	Trp
155							160				165			
Ile	Glu	Thr	Trp	Phe	Leu	Asp	Phe	Lys	Val	Leu	Pro	Gln	Glu	Ala
170							175				180			
Glu	Glu	Glu	Asn	Arg	Leu	Leu	Ile	Val	Gln	Asp	Ala	Ser	Glu	Arg
185							190				195			
Ala	Ala	Leu	Ile	Pro	Gly	Gly	Leu	Ser	Asp	Gly	Gln	Phe	Tyr	Ser
200							205				210			
Pro	Pro	Glu	Ser	Glu	Ala	Gly	Ser	Glu	Glu	Ala	Glu	Glu	Lys	Gln
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 <211> 2768  
 <212> DNA  
 <213> Homo Sapien

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<211> 673

<212> PRT

<213> Homo Sapien

<400> 16

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				20				25					30	

Ser	Gln	Pro	Gln	Thr	Val	Phe	Cys	Thr	Ala	Arg	Gln	Gly	Thr	Thr
				35				40					45	

Val	Pro	Arg	Asp	Val	Pro	Pro	Asp	Thr	Val	Gly	Leu	Tyr	Val	Phe	50	55	60
Glu	Asn	Gly	Ile	Thr	Met	Leu	Asp	Ala	Gly	Ser	Phe	Ala	Gly	Leu	65	70	75
Pro	Gly	Leu	Gln	Leu	Leu	Asp	Leu	Ser	Gln	Asn	Gln	Ile	Ala	Ser	80	85	90
Leu	Pro	Ser	Gly	Val	Phe	Gln	Pro	Leu	Ala	Asn	Leu	Ser	Asn	Leu	95	100	105
Asp	Leu	Thr	Ala	Asn	Arg	Leu	His	Glu	Ile	Thr	Asn	Glu	Thr	Phe	110	115	120
Arg	Gly	Leu	Arg	Arg	Leu	Glu	Arg	Leu	Tyr	Leu	Gly	Lys	Asn	Arg	125	130	135
Ile	Arg	His	Ile	Gln	Pro	Gly	Ala	Phe	Asp	Thr	Leu	Asp	Arg	Leu	140	145	150
Leu	Glu	Leu	Lys	Leu	Gln	Asp	Asn	Glu	Leu	Arg	Ala	Leu	Pro	Pro	155	160	165
Leu	Arg	Leu	Pro	Arg	Leu	Leu	Leu	Leu	Asp	Leu	Ser	His	Asn	Ser	170	175	180
Leu	Leu	Ala	Leu	Glu	Pro	Gly	Ile	Leu	Asp	Thr	Ala	Asn	Val	Glu	185	190	195
Ala	Leu	Arg	Leu	Ala	Gly	Leu	Gly	Leu	Gln	Gln	Leu	Asp	Glu	Gly	200	205	210
Leu	Phe	Ser	Arg	Leu	Arg	Asn	Leu	His	Asp	Leu	Asp	Val	Ser	Asp	215	220	225
Asn	Gln	Leu	Glu	Arg	Val	Pro	Pro	Val	Ile	Arg	Gly	Leu	Arg	Gly	230	235	240
Leu	Thr	Arg	Leu	Arg	Leu	Ala	Gly	Asn	Thr	Arg	Ile	Ala	Gln	Leu	245	250	255
Arg	Pro	Glu	Asp	Leu	Ala	Gly	Leu	Ala	Ala	Leu	Gln	Glu	Leu	Asp	260	265	270
Val	Ser	Asn	Leu	Ser	Leu	Gln	Ala	Leu	Pro	Gly	Asp	Leu	Ser	Gly	275	280	285
Leu	Phe	Pro	Arg	Leu	Arg	Leu	Leu	Ala	Ala	Ala	Arg	Asn	Pro	Phe	290	295	300
Asn	Cys	Val	Cys	Pro	Leu	Ser	Trp	Phe	Gly	Pro	Trp	Val	Arg	Glu	305	310	315
Ser	His	Val	Thr	Leu	Ala	Ser	Pro	Glu	Glu	Thr	Arg	Cys	His	Phe	320	325	330

Pro	Pro	Lys	Asn	Ala	Gly	Arg	Leu	Leu	Leu	Glu	Leu	Asp	Tyr	Ala	335	340	345
Asp	Phe	Gly	Cys	Pro	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Val	Pro	Thr	350	355	360
Thr	Arg	Pro	Val	Val	Arg	Glu	Pro	Thr	Ala	Leu	Ser	Ser	Ser	Leu	365	370	375
Ala	Pro	Thr	Trp	Leu	Ser	Pro	Thr	Ala	Pro	Ala	Thr	Glu	Ala	Pro	380	385	390
Ser	Pro	Pro	Ser	Thr	Ala	Pro	Pro	Thr	Val	Gly	Pro	Val	Pro	Gln	395	400	405
Pro	Gln	Asp	Cys	Pro	Pro	Ser	Thr	Cys	Leu	Asn	Gly	Gly	Thr	Cys	410	415	420
His	Leu	Gly	Thr	Arg	His	His	Leu	Ala	Cys	Leu	Cys	Pro	Glu	Gly	425	430	435
Phe	Thr	Gly	Leu	Tyr	Cys	Glu	Ser	Gln	Met	Gly	Gln	Gly	Thr	Arg	440	445	450
Pro	Ser	Pro	Thr	Pro	Val	Thr	Pro	Arg	Pro	Pro	Arg	Ser	Leu	Thr	455	460	465
Leu	Gly	Ile	Glu	Pro	Val	Ser	Pro	Thr	Ser	Leu	Arg	Val	Gly	Leu	470	475	480
Gln	Arg	Tyr	Leu	Gln	Gly	Ser	Ser	Val	Gln	Leu	Arg	Ser	Leu	Arg	485	490	495
Leu	Thr	Tyr	Arg	Asn	Leu	Ser	Gly	Pro	Asp	Lys	Arg	Leu	Val	Thr	500	505	510
Leu	Arg	Leu	Pro	Ala	Ser	Leu	Ala	Glu	Tyr	Thr	Val	Thr	Gln	Leu	515	520	525
Arg	Pro	Asn	Ala	Thr	Tyr	Ser	Val	Cys	Val	Met	Pro	Leu	Gly	Pro	530	535	540
Gly	Arg	Val	Pro	Glu	Gly	Glu	Glu	Ala	Cys	Gly	Glu	Ala	His	Thr	545	550	555
Pro	Pro	Ala	Val	His	Ser	Asn	His	Ala	Pro	Val	Thr	Gln	Ala	Arg	560	565	570
Glu	Gly	Asn	Leu	Pro	Leu	Leu	Ile	Ala	Pro	Ala	Leu	Ala	Ala	Val	575	580	585
Leu	Leu	Ala	Ala	Leu	Ala	Ala	Val	Gly	Ala	Ala	Tyr	Cys	Val	Arg	590	595	600
Arg	Gly	Arg	Ala	Met	Ala	Ala	Ala	Ala	Gln	Asp	Lys	Gly	Gln	Val	605	610	615

Gly	Pro	Gly	Ala	Gly	Pro	Leu	Glu	Leu	Glu	Gly	Val	Lys	Val	Pro
				620					625					630
Leu	Glu	Pro	Gly	Pro	Lys	Ala	Thr	Glu	Gly	Gly	Gly	Glu	Ala	Leu
				635					640					645
Pro	Ser	Gly	Ser	Glu	Cys	Glu	Val	Pro	Leu	Met	Gly	Phe	Pro	Gly
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Pro	Gly	Leu	Gln	Ser	Pro	Leu	His	Ala	Lys	Pro	Tyr	Ile		
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 <213> Homo Sapien

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 tgctgctgag cttggcctcg gcgtcctcgg atgaagaagg cagccaggat 150  
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 <212> PRT  
 <213> Homo Sapien

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 35 40 45  
 Lys Asp His Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe  
 50 55 60  
 Leu Asp Ser Glu Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu  
 65 70 75  
 Glu Asp Ser Leu Lys Ser Gln Glu Gly Glu Ser Val Thr Glu Asp  
 80 85 90  
 Ile Ser Phe Leu Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu  
 95 100 105  
 Glu Pro Lys Lys Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly  
 110 115 120

Thr	Ala	His	Gly	Glu	Pro	Cys	His	Phe	Pro	Phe	Leu	Phe	Leu	Asp	125	130	135
Lys	Glu	Tyr	Asp	Glu	Cys	Thr	Ser	Asp	Gly	Arg	Glu	Asp	Gly	Arg	140	145	150
Leu	Trp	Cys	Ala	Thr	Thr	Tyr	Asp	Tyr	Lys	Ala	Asp	Glu	Lys	Trp	155	160	165
Gly	Phe	Cys	Glu	Thr	Glu	Glu	Glu	Ala	Ala	Lys	Arg	Arg	Gln	Met	170	175	180
Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn	185	190	195
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu	200	205	210
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val	215	220	225
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln	230	235	240
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro	245	250	255
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly	260	265	270
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly	275	280	285
Ala	Leu	Gly	Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Val	Ser	Arg	290	295	300
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<210> 19  
 <211> 1508  
 <212> DNA  
 <213> Homo Sapien

<400> 19  
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 tacattttta tcactggatg tgactcgggc tttggaaact tggcagccag 250  
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aaaaaaaa 1508

<210> 20

<211> 319

<212> PRT

<213> Homo Sapien

<400> 20

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Tyr Ile Phe Ile Thr Gly Cys Asp Ser Gly Phe Gly Asn Leu Ala	35	40	45
Ala Arg Thr Phe Asp Lys Lys Gly Phe His Val Ile Ala Ala Cys	50	55	60
Leu Thr Glu Ser Gly Ser Thr Ala Leu Lys Ala Glu Thr Ser Glu	65	70	75
Arg Leu Arg Thr Val Leu Leu Asp Val Thr Asp Pro Glu Asn Val	80	85	90
Lys Arg Thr Ala Gln Trp Val Lys Asn Gln Val Gly Glu Lys Gly	95	100	105
Leu Trp Gly Leu Ile Asn Asn Ala Gly Val Pro Gly Val Leu Ala	110	115	120
Pro Thr Asp Trp Leu Thr Leu Glu Asp Tyr Arg Glu Pro Ile Glu	125	130	135
Val Asn Leu Phe Gly Leu Ile Ser Val Thr Leu Asn Met Leu Pro	140	145	150
Leu Val Lys Lys Ala Gln Gly Arg Val Ile Asn Val Ser Ser Val	155	160	165
Gly Gly Arg Leu Ala Ile Val Gly Gly Gly Tyr Thr Pro Ser Lys	170	175	180
Tyr Ala Val Glu Gly Phe Asn Asp Ser Leu Arg Arg Asp Met Lys	185	190	195
Ala Phe Gly Val His Val Ser Cys Ile Glu Pro Gly Leu Phe Lys	200	205	210
Thr Asn Leu Ala Asp Pro Val Lys Val Ile Glu Lys Lys Leu Ala	215	220	225
Ile Trp Glu Gln Leu Ser Pro Asp Ile Lys Gln Gln Tyr Gly Glu	230	235	240
Gly Tyr Ile Glu Lys Ser Leu Asp Lys Leu Lys Gly Asn Lys Ser	245	250	255
Tyr Val Asn Met Asp Leu Ser Pro Val Val Glu Cys Met Asp His	260	265	270
Ala Leu Thr Ser Leu Phe Pro Lys Thr His Tyr Ala Ala Gly Lys	275	280	285
Asp Ala Lys Ile Phe Trp Ile Pro Leu Ser His Met Pro Ala Ala			

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Leu Gln Asp Phe Leu Leu Leu Lys Gln Lys Ala Glu Leu Ala Asn					
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Pro Lys Ala Val

<210> 21  
 <211> 1849  
 <212> DNA  
 <213> Homo Sapien

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<210> 22

<211> 409

<212> PRT

<213> Homo Sapien

<400> 22

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				20					25					30

Gly	Phe	Leu	Leu	Gly	Glu	Val	Lys	Gly	Glu	Ala	Lys	Asn	Ser	Ile
				35					40					45

Thr	Asp	Ser	Gln	Met	Asp	Asp	Val	Glu	Val	Val	Tyr	Thr	Ile	Asp
				50					55					60

Ile	Gln	Lys	Tyr	Ile	Pro	Cys	Tyr	Gln	Leu	Phe	Ser	Phe	Tyr	Asn
				65					70					75

Ser	Ser	Gly	Glu	Val	Asn	Glu	Gln	Ala	Leu	Lys	Lys	Ile	Leu	Ser
				80					85					90

Asn	Val	Lys	Lys	Asn	Val	Val	Gly	Trp	Tyr	Lys	Phe	Arg	Arg	His
				95					100					105

Ser Asp Gln Ile	Met Thr Phe	Arg Glu Arg	Leu Leu His	Lys Asn
	110		115	120
Leu Gln Glu His	Phe Ser Asn	Gln Asp Leu	Val Phe Leu	Leu Leu
	125		130	135
Thr Pro Ser Ile	Ile Thr Glu	Ser Cys Ser	Thr His Arg	Leu Glu
	140		145	150
His Ser Leu Tyr	Lys Pro Gln	Lys Gly Leu	Phe His Arg	Val Pro
	155		160	165
Leu Val Val Ala	Asn Leu Gly	Met Ser Glu	Gln Leu Gly	Tyr Lys
	170		175	180
Thr Val Ser Gly	Ser Cys Met	Ser Thr Gly	Phe Ser Arg	Ala Val
	185		190	195
Gln Thr His Ser	Ser Lys Phe	Phe Glu Glu	Asp Gly Ser	Leu Lys
	200		205	210
Glu Val His Lys	Ile Asn Glu	Met Tyr Ala	Ser Leu Gln	Glu Glu
	215		220	225
Leu Lys Ser Ile	Cys Lys Lys	Val Glu Asp	Ser Glu Gln	Ala Val
	230		235	240
Asp Lys Leu Val	Lys Asp Val	Asn Arg Leu	Lys Arg Glu	Ile Glu
	245		250	255
Lys Arg Arg Gly	Ala Gln Ile	Gln Ala Ala	Arg Glu Lys	Asn Ile
	260		265	270
Gln Lys Asp Pro	Gln Glu Asn	Ile Phe Leu	Cys Gln Ala	Leu Arg
	275		280	285
Thr Phe Phe Pro	Asn Ser Glu	Phe Leu His	Ser Cys Val	Met Ser
	290		295	300
Leu Lys Asn Arg	His Val Ser	Lys Ser Ser	Cys Asn Tyr	Asn His
	305		310	315
His Leu Asp Val	Val Asp Asn	Leu Thr Leu	Met Val Glu	His Thr
	320		325	330
Asp Ile Pro Glu	Ala Ser Pro	Ala Ser Thr	Pro Gln Ile	Ile Lys
	335		340	345
His Lys Ala Leu	Asp Leu Asp	Asp Arg Trp	Gln Phe Lys	Arg Ser
	350		355	360
Arg Leu Leu Asp	Thr Gln Asp	Lys Arg Ser	Lys Ala Asn	Thr Gly
	365		370	375
Ser Ser Asn Gln	Asp Lys Ala	Ser Lys Met	Ser Ser Pro	Glu Thr
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Asp Glu Glu Ile Glu Lys Met Lys Gly Phe Gly Glu Tyr Ser Arg  
 395 400 405

Ser Pro Thr Phe

<210> 23  
 <211> 2651  
 <212> DNA  
 <213> Homo Sapien

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c 2651

<210> 24  
<211> 556  
<212> PRT  
<213> Homo Sapien

<400> 24

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				20					25					30	
Ser	Glu	Val	Arg	Arg	Leu	Tyr	Val	Ser	Lys	Gly	Phe	Asn	Lys	Asn	
				35					40					45	
Asp	Ala	Pro	Leu	His	Glu	Ile	Asn	Gly	Asp	His	Leu	Lys	Ile	Cys	
				50					55					60	
Pro	Gln	Gly	Ser	Thr	Cys	Cys	Ser	Gln	Glu	Met	Glu	Glu	Lys	Tyr	
				65					70					75	
Ser	Leu	Gln	Ser	Lys	Asp	Asp	Phe	Lys	Ser	Val	Val	Ser	Glu	Gln	
				80					85					90	
Cys	Asn	His	Leu	Gln	Ala	Val	Phe	Ala	Ser	Arg	Tyr	Lys	Lys	Phe	
				95					100					105	
Asp	Glu	Phe	Phe	Lys	Glu	Leu	Leu	Glu	Asn	Ala	Glu	Lys	Ser	Leu	
				110					115					120	
Asn	Asp	Met	Phe	Val	Lys	Thr	Tyr	Gly	His	Leu	Tyr	Met	Gln	Asn	
				125					130					135	
Ser	Glu	Leu	Phe	Lys	Asp	Leu	Phe	Val	Glu	Leu	Lys	Arg	Tyr	Tyr	
				140					145					150	
Val	Val	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp	
				155					160					165	
Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Arg	Leu	Val	Asn	Ser	Gln	Tyr	
				170					175					180	
His	Phe	Thr	Asp	Glu	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Glu	
				185					190					195	
Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Leu	Gln	
				200					205					210	
Val	Thr	Arg	Ala	Phe	Val	Ala	Ala	Arg	Thr	Phe	Ala	Gln	Gly	Leu	
				215					220					225	
Ala	Val	Ala	Gly	Asp	Val	Val	Ser	Lys	Val	Ser	Val	Val	Asn	Pro	

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Thr	Ala	Gln	Cys	Thr	His	Ala	Leu	Leu	Lys	Met	Ile	Tyr	Cys	Ser
			245						250				255	
His	Cys	Arg	Gly	Leu	Val	Thr	Val	Lys	Pro	Cys	Tyr	Asn	Tyr	Cys
			260						265				270	
Ser	Asn	Ile	Met	Arg	Gly	Cys	Leu	Ala	Asn	Gln	Gly	Asp	Leu	Asp
			275						280				285	
Phe	Glu	Trp	Asn	Asn	Phe	Ile	Asp	Ala	Met	Leu	Met	Val	Ala	Glu
			290						295				300	
Arg	Leu	Glu	Gly	Pro	Phe	Asn	Ile	Glu	Ser	Val	Met	Asp	Pro	Ile
			305						310				315	
Asp	Val	Lys	Ile	Ser	Asp	Ala	Ile	Met	Asn	Met	Gln	Asp	Asn	Ser
			320						325				330	
Val	Gln	Val	Ser	Gln	Lys	Val	Phe	Gln	Gly	Cys	Gly	Pro	Pro	Lys
			335						340				345	
Pro	Leu	Pro	Ala	Gly	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Glu	Ser	Ala
			350						355				360	
Phe	Ser	Ala	Arg	Phe	Arg	Pro	His	His	Pro	Glu	Glu	Arg	Pro	Thr
			365						370				375	
Thr	Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Val	Lys
			380						385				390	
Glu	Lys	Leu	Lys	Gln	Ala	Lys	Lys	Phe	Trp	Ser	Ser	Leu	Pro	Ser
			395						400				405	
Asn	Val	Cys	Asn	Asp	Glu	Arg	Met	Ala	Ala	Gly	Asn	Gly	Asn	Glu
			410						415				420	
Asp	Asp	Cys	Trp	Asn	Gly	Lys	Gly	Lys	Ser	Arg	Tyr	Leu	Phe	Ala
			425						430				435	
Val	Thr	Gly	Asn	Gly	Leu	Ala	Asn	Gln	Gly	Asn	Asn	Pro	Glu	Val
			440						445				450	
Gln	Val	Asp	Thr	Ser	Lys	Pro	Asp	Ile	Leu	Ile	Leu	Arg	Gln	Ile
			455						460				465	
Met	Ala	Leu	Arg	Val	Met	Thr	Ser	Lys	Met	Lys	Asn	Ala	Tyr	Asn
			470						475				480	
Gly	Asn	Asp	Val	Asp	Phe	Phe	Asp	Ile	Ser	Asp	Glu	Ser	Ser	Gly
			485						490				495	
Glu	Gly	Ser	Gly	Ser	Gly	Cys	Glu	Tyr	Gln	Gln	Cys	Pro	Ser	Glu
			500						505				510	
Phe	Asp	Tyr	Asn	Ala	Thr	Asp	His	Ala	Gly	Lys	Ser	Ala	Asn	Glu

515	520	525
Lys Ala Asp Ser Ala Gly Val Arg Pro Gly Ala Gln Ala Tyr Leu		
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Leu Thr Val Phe Cys Ile Leu Phe Leu Val Met Gln Arg Glu Trp		
545	550	555

Arg

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 <211> 870  
 <212> DNA  
 <213> Homo Sapien

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<210> 26  
 <211> 119  
 <212> PRT  
 <213> Homo Sapien

<400> 26

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Leu	Met	Ser	Met	Val	Ser	Ser	Ser	Leu	Asn	Pro	Gly	Val	Ala	Arg
				20					25					30
Gly	His	Arg	Asp	Arg	Gly	Gln	Ala	Ser	Arg	Arg	Trp	Leu	Gln	Glu
				35					40					45
Gly	Gly	Gln	Glu	Cys	Glu	Cys	Lys	Asp	Trp	Phe	Leu	Arg	Ala	Pro
				50					55					60
Arg	Arg	Lys	Phe	Met	Thr	Val	Ser	Gly	Leu	Pro	Lys	Lys	Gln	Cys
				65					70					75
Pro	Cys	Asp	His	Phe	Lys	Gly	Asn	Val	Lys	Lys	Thr	Arg	His	Gln
				80					85					90
Arg	His	His	Arg	Lys	Pro	Asn	Lys	His	Ser	Arg	Ala	Cys	Gln	Gln
				95					100					105
Phe	Leu	Lys	Gln	Cys	Gln	Leu	Arg	Ser	Phe	Ala	Leu	Pro	Leu	
				110					115					

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 <212> DNA  
 <213> Homo Sapien

<400> 27

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<210> 28

<211> 277

<212> PRT

<213> Homo Sapien

<400> 28

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				20						25				30

Leu	Cys	Lys	Ser	Tyr	Phe	Pro	Tyr	Leu	Met	Ala	Val	Leu	Thr	Pro
				35						40				45

Lys	Ser	Asn	Arg	Lys	Met	Glu	Ser	Lys	Lys	Arg	Glu	Leu	Phe	Ser
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Gln	Ile	Lys	Gly	Leu	Thr	Gly	Ala	Ser	Gly	Lys	Val	Ala	Leu	Leu
				65						70				75

Glu	Leu	Gly	Cys	Gly	Thr	Gly	Ala	Asn	Phe	Gln	Phe	Tyr	Pro	Pro
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Gly	Cys	Arg	Val	Thr	Cys	Leu	Asp	Pro	Asn	Pro	His	Phe	Glu	Lys
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Phe	Leu	Thr	Lys	Ser	Met	Ala	Glu	Asn	Arg	His	Leu	Gln	Tyr	Glu
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Arg Phe Val Val	Ala Pro Gly	Glu Asp Met Arg Gln Leu Ala Asp	
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Gly Ser Met Asp	Val Val Val	Cys Thr Leu Val Leu Cys Ser Val	
	140	145	150
Gln Ser Pro Arg	Lys Val Leu	Gln Glu Val Arg Arg Val Leu Arg	
	155	160	165
Pro Gly Gly Val	Leu Phe Phe	Trp Glu His Val Ala Glu Pro Tyr	
	170	175	180
Gly Ser Trp Ala	Phe Met Trp	Gln Gln Val Phe Glu Pro Thr Trp	
	185	190	195
Lys His Ile Gly	Asp Gly Cys Cys Leu	Thr Arg Glu Thr Trp Lys	
	200	205	210
Asp Leu Glu Asn	Ala Gln Phe	Ser Glu Ile Gln Met Glu Arg Gln	
	215	220	225
Pro Pro Pro Leu	Lys Trp Leu	Pro Val Gly Pro His Ile Met Gly	
	230	235	240
Lys Ala Val Lys	Gln Ser Phe	Pro Ser Ser Lys Ala Leu Ile Cys	
	245	250	255
Ser Phe Pro Ser	Leu Gln Leu	Glu Gln Ala Thr His Gln Pro Ile	
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Tyr Leu Pro Leu	Arg Gly Thr		
	275		

<210> 29  
 <211> 494  
 <212> DNA  
 <213> Homo Sapien

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 gactggtcgg tgcccagaaa gtctcttctg ccactgacgc ccccatcagg 150  
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 tgccatgacc tgcagccaag ccagccccg tggggaaggg gagaaagtgg 250  
 gggatggcta agaaagctgg gagatagggg acagaagagg gtagtgggtg 300  
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 atttatacaa agatattaag gccctgttca ttaagaaatt gttcccttcc 400

cctgtgttca atgtttgtaa agattgttct gtgtaaatat gtctttataa 450

taaacagtta aaagctgaaa aaaaaaaaaa aaaaaaaaaa aaaa 494

<210> 30

<211> 73

<212> PRT

<213> Homo Sapien

<400> 30

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20 25 30

Ala Thr Asp Ala Pro Ile Arg Asp Trp Ala Phe Phe Pro Pro Ser  
35 40 45

Phe Leu Cys Leu Leu Pro His Arg Pro Ala Met Thr Cys Ser Gln  
50 55 60

Ala Gln Pro Arg Gly Glu Gly Glu Lys Val Gly Asp Gly  
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<210> 31

<211> 1660

<212> DNA

<213> Homo Sapien

<400> 31

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atgatgttga caccctccac cgaattctaa gtggaatcat gtcggaaga 200

gatacaatcc ttggcctgtg taccctcgca ttagccttgt ctttggccat 250

gatgtttacc ttcagattca tcaccaccct tctggttcac attttcattt 300

cattgggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350

tattatgact ataccaacga cctcagcata gaattggaca cagaaagga 400

aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcatcacgg 450

cagtgtgtgt cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500

gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcct 550

gctgttccag ccactgtgga catttgccat cctcattttc ttctgggtcc 600

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<210> 32  
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 <212> PRT  
 <213> Homo Sapien

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 35 40 45  
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn  
 50 55 60

Asp	Leu	Ser	Ile	Glu	Leu	Asp	Thr	Glu	Arg	Glu	Asn	Met	Lys	Cys	
				65					70					75	
Val	Leu	Gly	Phe	Ala	Ile	Val	Ser	Thr	Gly	Ile	Thr	Ala	Val	Leu	
				80					85					90	
Leu	Val	Leu	Ile	Phe	Val	Leu	Arg	Lys	Arg	Ile	Lys	Leu	Thr	Val	
				95					100					105	
Glu	Leu	Phe	Gln	Ile	Thr	Asn	Lys	Ala	Ile	Ser	Ser	Ala	Pro	Phe	
				110					115					120	
Leu	Leu	Phe	Gln	Pro	Leu	Trp	Thr	Phe	Ala	Ile	Leu	Ile	Phe	Phe	
				125					130					135	
Trp	Val	Leu	Trp	Val	Ala	Val	Leu	Leu	Ser	Leu	Gly	Thr	Ala	Gly	
				140					145					150	
Ala	Ala	Gln	Val	Met	Glu	Gly	Gly	Gln	Val	Glu	Tyr	Lys	Pro	Leu	
				155					160					165	
Ser	Gly	Ile	Arg	Tyr	Met	Trp	Ser	Tyr	His	Leu	Ile	Gly	Leu	Ile	
				170					175					180	
Trp	Thr	Ser	Glu	Phe	Ile	Leu	Ala	Cys	Gln	Gln	Met	Thr	Ile	Ala	
				185					190					195	
Gly	Ala	Val	Val	Thr	Cys	Tyr	Phe	Asn	Arg	Ser	Lys	Asn	Asp	Pro	
				200					205					210	
Pro	Asp	His	Pro	Ile	Leu	Ser	Ser	Leu	Ser	Ile	Leu	Phe	Phe	Tyr	
				215					220					225	
His	Gln	Gly	Thr	Val	Val	Lys	Gly	Ser	Phe	Leu	Ile	Ser	Val	Val	
				230					235					240	
Arg	Ile	Pro	Arg	Ile	Ile	Val	Met	Tyr	Met	Gln	Asn	Ala	Leu	Lys	
				245					250					255	
Glu	Gln	Gln	His	Gly	Ala	Leu	Ser	Arg	Tyr	Leu	Phe	Arg	Cys	Cys	
				260					265					270	
Tyr	Cys	Cys	Phe	Trp	Cys	Leu	Asp	Lys	Tyr	Leu	Leu	His	Leu	Asn	
				275					280					285	
Gln	Asn	Ala	Tyr	Thr	Thr	Thr	Ala	Ile	Asn	Gly	Thr	Asp	Phe	Cys	
				290					295					300	
Thr	Ser	Ala	Lys	Asp	Ala	Phe	Lys	Ile	Leu	Ser	Lys	Asn	Ser	Ser	
				305					310					315	
His	Phe	Thr	Ser	Ile	Asn	Cys	Phe	Gly	Asp	Phe	Ile	Ile	Phe	Leu	
				320					325					330	
Gly	Lys	Val	Leu	Val	Val	Cys	Phe	Thr	Val	Phe	Gly	Gly	Leu	Met	
				335					340					345	

Ala	Phe	Asn	Tyr	Asn	Arg	Ala	Phe	Gln	Val	Trp	Ala	Val	Pro	Leu	
				350					355					360	
Leu	Leu	Val	Ala	Phe	Phe	Ala	Tyr	Leu	Val	Ala	His	Ser	Phe	Leu	
				365					370					375	
Ser	Val	Phe	Glu	Thr	Val	Leu	Asp	Ala	Leu	Phe	Leu	Cys	Phe	Ala	
				380					385					390	
Val	Asp	Leu	Glu	Thr	Asn	Asp	Gly	Ser	Ser	Glu	Lys	Pro	Tyr	Phe	
				395					400					405	
Met	Asp	Gln	Glu	Phe	Leu	Ser	Phe	Val	Lys	Arg	Ser	Asn	Lys	Leu	
				410					415					420	
Asn	Asn	Ala	Arg	Ala	Gln	Gln	Asp	Lys	His	Ser	Leu	Arg	Asn	Glu	
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Glu	Gly	Thr	Glu	Leu	Gln	Ala	Ile	Val	Arg						
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<210> 33  
 <211> 2773  
 <212> DNA  
 <213> Homo Sapien

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 <212> PRT  
 <213> Homo Sapien

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 35 40 45  
 Cys Asp Val Lys Ala Gly Lys Ile Ile Asp Pro Glu Phe Ile Val  
 50 55 60  
 Lys Cys Pro Ala Gly Cys Gln Asp Pro Lys Tyr His Val Tyr Gly  
 65 70 75  
 Thr Asp Val Tyr Ala Ser Tyr Ser Ser Val Cys Gly Ala Ala Val  
 80 85 90  
 His Ser Gly Val Leu Asp Asn Ser Gly Gly Lys Ile Leu Val Arg  
 95 100 105  
 Lys Val Ala Gly Gln Ser Gly Tyr Lys Gly Ser Tyr Ser Asn Gly  
 110 115 120  
 Val Gln Ser Leu Ser Leu Pro Arg Trp Arg Glu Ser Phe Ile Val  
 125 130 135

Leu Glu Ser Lys	Pro Lys Lys	Gly Val Thr Tyr	Pro Ser Ala	Leu
	140		145	150
Thr Tyr Ser Ser	Ser Lys Ser	Pro Ala Ala Gln	Ala Gly Glu	Thr
	155		160	165
Thr Lys Ala Tyr	Gln Arg Pro	Pro Ile Pro Gly	Thr Thr Ala	Gln
	170		175	180
Pro Val Thr Leu	Met Gln Leu	Leu Ala Val Thr	Val Ala Val	Ala
	185		190	195
Thr Pro Thr Thr	Leu Pro Arg	Pro Ser Pro Ser	Ala Ala Ser	Thr
	200		205	210
Thr Ser Ile Pro	Arg Pro Gln	Ser Val Gly His	Arg Ser Gln	Glu
	215		220	225
Met Asp Leu Trp	Ser Thr Ala	Thr Tyr Thr Ser	Ser Ser Gln	Asn Arg
	230		235	240
Pro Arg Ala Asp	Pro Gly Ile	Gln Arg Gln Asp	Pro Ser Gly	Ala
	245		250	255
Ala Phe Gln Lys	Pro Val Gly	Ala Asp Val Ser	Leu Gly Leu	Val
	260		265	270
Pro Lys Glu Glu	Leu Ser Thr	Gln Ser Leu Glu	Pro Val Ser	Leu
	275		280	285
Gly Asp Pro Asn	Cys Lys Ile	Asp Leu Ser Phe	Leu Ile Asp	Gly
	290		295	300
Ser Thr Ser Ile	Gly Lys Arg	Arg Phe Arg Ile	Gln Lys Gln	Leu
	305		310	315
Leu Ala Asp Val	Ala Gln Ala	Leu Asp Ile Gly	Pro Ala Gly	Pro
	320		325	330
Leu Met Gly Val	Val Gln Tyr	Gly Asp Asn Pro	Ala Thr His	Phe
	335		340	345
Asn Leu Lys Thr	His Thr Asn	Ser Arg Asp Leu	Lys Thr Ala	Ile
	350		355	360
Glu Lys Ile Thr	Gln Arg Gly	Gly Leu Ser Asn	Val Gly Arg	Ala
	365		370	375
Ile Ser Phe Val	Thr Lys Asn	Phe Phe Ser Lys	Ala Asn Gly	Asn
	380		385	390
Arg Ser Gly Ala	Pro Asn Val	Val Val Val Met	Val Asp Gly	Trp
	395		400	405
Pro Thr Asp Lys	Val Glu Glu	Ala Ser Arg Leu	Ala Arg Glu	Ser
	410		415	420

Gly Ile Asn Ile Phe Phe Ile Thr Ile Glu Gly Ala Ala Glu Asn	425	430	435
Glu Lys Gln Tyr Val Val Glu Pro Asn Phe Ala Asn Lys Ala Val	440	445	450
Cys Arg Thr Asn Gly Phe Tyr Ser Leu His Val Gln Ser Trp Phe	455	460	465
Gly Leu His Lys Thr Leu Gln Pro Leu Val Lys Arg Val Cys Asp	470	475	480
Thr Asp Arg Leu Ala Cys Ser Lys Thr Cys Leu Asn Ser Ala Asp	485	490	495
Ile Gly Phe Val Ile Asp Gly Ser Ser Ser Val Gly Thr Gly Asn	500	505	510
Phe Arg Thr Val Leu Gln Phe Val Thr Asn Leu Thr Lys Glu Phe	515	520	525
Glu Ile Ser Asp Thr Asp Thr Arg Ile Gly Ala Val Gln Tyr Thr	530	535	540
Tyr Glu Gln Arg Leu Glu Phe Gly Phe Asp Lys Tyr Ser Ser Lys	545	550	555
Pro Asp Ile Leu Asn Ala Ile Lys Arg Val Gly Tyr Trp Ser Gly	560	565	570
Gly Thr Ser Thr Gly Ala Ala Ile Asn Phe Ala Leu Glu Gln Leu	575	580	585
Phe Lys Lys Ser Lys Pro Asn Lys Arg Lys Leu Met Ile Leu Ile	590	595	600
Thr Asp Gly Arg Ser Tyr Asp Asp Val Arg Ile Pro Ala Met Ala	605	610	615
Ala His Leu Lys Gly Val Ile Thr Tyr Ala Ile Gly Val Ala Trp	620	625	630
Ala Ala Gln Glu Glu Leu Glu Val Ile Ala Thr His Pro Ala Arg	635	640	645
Asp His Ser Phe Phe Val Asp Glu Phe Asp Asn Leu His Gln Tyr	650	655	660
Val Pro Arg Ile Ile Gln Asn Ile Cys Thr Glu Phe Asn Ser Gln	665	670	675

Pro Arg Asn

<210> 35  
 <211> 2095  
 <212> DNA

<213> Homo Sapien

<400> 35

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caacaaaaaa ctttaagcttt aatttcacat ggaattccac agttttctta 200  
gctccctgga cccggttgac ctggttgctc tccccgctgg ctgctctatc 250  
acgtgggtgct ctccgactac tcaccccgag tgtaaagaac cttcggctcg 300  
cgtgcttctg agctgctgag gatggcctcg gctctctgga ctgtccttcc 350  
gagtaggatg tcaactgagat cctcacaatg gagcctcctg ctgctgtcac 400  
tcctgagttt ctttgtgatg tggtagctca gccttcccc ctacaatgtg 450  
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 tttaaaatta cttcaacttt gtgtttttta atgttttgac gatttcaata 1900  
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950  
 tacttaactg atcagtttat tattgatata tcactccatt aatgtaaagt 2000  
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<210> 36

<211> 331

<212> PRT

<213> Homo Sapien

<400> 36

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Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe
			20						25					30

Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu
				35					40					45

Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg
				50					55					60

Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His
				65					70					75

Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp
				80					85					90

Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys
				95					100					105

Ser	Trp	Trp	Gly	Tyr	Glu	Val	Leu	Thr	Phe	Phe	Leu	Leu	Gly	Gln
				110					115					120
Glu	Ala	Glu	Lys	Glu	Asp	Lys	Met	Leu	Ala	Leu	Ser	Leu	Glu	Asp
				125					130					135
Glu	His	Leu	Leu	Tyr	Gly	Asp	Ile	Ile	Arg	Gln	Asp	Phe	Leu	Asp
				140					145					150
Thr	Tyr	Asn	Asn	Leu	Thr	Leu	Lys	Thr	Ile	Met	Ala	Phe	Arg	Trp
				155					160					165
Val	Thr	Glu	Phe	Cys	Pro	Asn	Ala	Lys	Tyr	Val	Met	Lys	Thr	Asp
				170					175					180
Thr	Asp	Val	Phe	Ile	Asn	Thr	Gly	Asn	Leu	Val	Lys	Tyr	Leu	Leu
				185					190					195
Asn	Leu	Asn	His	Ser	Glu	Lys	Phe	Phe	Thr	Gly	Tyr	Pro	Leu	Ile
				200					205					210
Asp	Asn	Tyr	Ser	Tyr	Arg	Gly	Phe	Tyr	Gln	Lys	Thr	His	Ile	Ser
				215					220					225
Tyr	Gln	Glu	Tyr	Pro	Phe	Lys	Val	Phe	Pro	Pro	Tyr	Cys	Ser	Gly
				230					235					240
Leu	Gly	Tyr	Ile	Met	Ser	Arg	Asp	Leu	Val	Pro	Arg	Ile	Tyr	Glu
				245					250					255
Met	Met	Gly	His	Val	Lys	Pro	Ile	Lys	Phe	Glu	Asp	Val	Tyr	Val
				260					265					270
Gly	Ile	Cys	Leu	Asn	Leu	Leu	Lys	Val	Asn	Ile	His	Ile	Pro	Glu
				275					280					285
Asp	Thr	Asn	Leu	Phe	Phe	Leu	Tyr	Arg	Ile	His	Leu	Asp	Val	Cys
				290					295					300
Gln	Leu	Arg	Arg	Val	Ile	Ala	Ala	His	Gly	Phe	Ser	Ser	Lys	Glu
				305					310					315
Ile	Ile	Thr	Phe	Trp	Gln	Val	Met	Leu	Arg	Asn	Thr	Thr	Cys	His
				320					325					330

Tyr

<210> 37

<211> 2846

<212> DNA

<213> Homo Sapien

<400> 37

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tggggctcac ttttcttcag ctccttctca tctcgtcctt gccaaagagag 100

tacacagtca ttaatgaagc ctgccctgga gcagagtgga atatcatgtg 150  
 tcgggagtgc tgtgaatatg atcagattga gtgcgtctgc cccggaaaga 200  
 ggggaagtcgt gggttatacc atcccttgct gcaggaatga ggagaatgag 250  
 tgtgactcct gcctgatcca cccaggttgt accatctttg aaaactgcaa 300  
 gagctgccga aatggctcat gggggggtac cttggatgac ttctatgtga 350  
 aggggttcta ctgtgcagag tgccgagcag gctggtacgg aggagactgc 400  
 atgcgatgtg gccaggttct gcgagcccca aagggtcaga ttttgttggg 450  
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<210> 38  
 <211> 720  
 <212> PRT  
 <213> Homo Sapien

<400> 38

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Leu	Leu	Leu	Ile	Ser	Ser	Leu	Pro	Arg	Glu	Tyr	Thr	Val	Ile	Asn
				20					25					30
Glu	Ala	Cys	Pro	Gly	Ala	Glu	Trp	Asn	Ile	Met	Cys	Arg	Glu	Cys
				35					40					45
Cys	Glu	Tyr	Asp	Gln	Ile	Glu	Cys	Val	Cys	Pro	Gly	Lys	Arg	Glu
				50					55					60
Val	Val	Gly	Tyr	Thr	Ile	Pro	Cys	Cys	Arg	Asn	Glu	Glu	Asn	Glu
				65					70					75
Cys	Asp	Ser	Cys	Leu	Ile	His	Pro	Gly	Cys	Thr	Ile	Phe	Glu	Asn
				80					85					90
Cys	Lys	Ser	Cys	Arg	Asn	Gly	Ser	Trp	Gly	Gly	Thr	Leu	Asp	Asp
				95					100					105
Phe	Tyr	Val	Lys	Gly	Phe	Tyr	Cys	Ala	Glu	Cys	Arg	Ala	Gly	Trp
				110					115					120
Tyr	Gly	Gly	Asp	Cys	Met	Arg	Cys	Gly	Gln	Val	Leu	Arg	Ala	Pro
				125					130					135
Lys	Gly	Gln	Ile	Leu	Leu	Glu	Ser	Tyr	Pro	Leu	Asn	Ala	His	Cys
				140					145					150
Glu	Trp	Thr	Ile	His	Ala	Lys	Pro	Gly	Phe	Val	Ile	Gln	Leu	Arg
				155					160					165
Phe	Val	Met	Leu	Ser	Leu	Glu	Phe	Asp	Tyr	Met	Cys	Gln	Tyr	Asp
				170					175					180
Tyr	Val	Glu	Val	Arg	Asp	Gly	Asp	Asn	Arg	Asp	Gly	Gln	Ile	Ile
				185					190					195
Lys	Arg	Val	Cys	Gly	Asn	Glu	Arg	Pro	Ala	Pro	Ile	Gln	Ser	Ile
				200					205					210
Gly	Ser	Ser	Leu	His	Val	Leu	Phe	His	Ser	Asp	Gly	Ser	Lys	Asn
				215					220					225
Phe	Asp	Gly	Phe	His	Ala	Ile	Tyr	Glu	Glu	Ile	Thr	Ala	Cys	Ser
				230					235					240
Ser	Ser	Pro	Cys	Phe	His	Asp	Gly	Thr	Cys	Val	Leu	Asp	Lys	Ala
				245					250					255
Gly	Ser	Tyr	Lys	Cys	Ala	Cys	Leu	Ala	Gly	Tyr	Thr	Gly	Gln	Arg
				260					265					270
Cys	Glu	Asn	Leu	Leu	Glu	Glu	Arg	Asn	Cys	Ser	Asp	Pro	Gly	Gly
				275					280					285

Pro Val Asn Gly Tyr Gln Lys	Ile Thr Gly Gly Pro Gly Leu Ile	290	295	300
Asn Gly Arg His Ala Lys Ile	Gly Thr Val Val Ser Phe Phe Cys	305	310	315
Asn Asn Ser Tyr Val Leu Ser	Gly Asn Glu Lys Arg Thr Cys Gln	320	325	330
Gln Asn Gly Glu Trp Ser Gly	Lys Gln Pro Ile Cys Ile Lys Ala	335	340	345
Cys Arg Glu Pro Lys Ile Ser	Asp Leu Val Arg Arg Arg Val Leu	350	355	360
Pro Met Gln Val Gln Ser Arg	Glu Thr Pro Leu His Gln Leu Tyr	365	370	375
Ser Ala Ala Phe Ser Lys Gln	Lys Leu Gln Ser Ala Pro Thr Lys	380	385	390
Lys Pro Ala Leu Pro Phe Gly	Asp Leu Pro Met Gly Tyr Gln His	395	400	405
Leu His Thr Gln Leu Gln Tyr	Glu Cys Ile Ser Pro Phe Tyr Arg	410	415	420
Arg Leu Gly Ser Ser Arg Arg	Thr Cys Leu Arg Thr Gly Lys Trp	425	430	435
Ser Gly Arg Ala Pro Ser Cys	Ile Pro Ile Cys Gly Lys Ile Glu	440	445	450
Asn Ile Thr Ala Pro Lys Thr	Gln Gly Leu Arg Trp Pro Trp Gln	455	460	465
Ala Ala Ile Tyr Arg Arg Thr	Ser Gly Val His Asp Gly Ser Leu	470	475	480
His Lys Gly Ala Trp Phe Leu	Val Cys Ser Gly Ala Leu Val Asn	485	490	495
Glu Arg Thr Val Val Val Ala	Ala His Cys Val Thr Asp Leu Gly	500	505	510
Lys Val Thr Met Ile Lys Thr	Ala Asp Leu Lys Val Val Leu Gly	515	520	525
Lys Phe Tyr Arg Asp Asp Asp	Arg Asp Glu Lys Thr Ile Gln Ser	530	535	540
Leu Gln Ile Ser Ala Ile Ile	Leu His Pro Asn Tyr Asp Pro Ile	545	550	555
Leu Leu Asp Ala Asp Ile Ala	Ile Leu Lys Leu Leu Asp Lys Ala	560	565	570

Arg	Ile	Ser	Thr	Arg	Val	Gln	Pro	Ile	Cys	Leu	Ala	Ala	Ser	Arg	575	580	585
Asp	Leu	Ser	Thr	Ser	Phe	Gln	Glu	Ser	His	Ile	Thr	Val	Ala	Gly	590	595	600
Trp	Asn	Val	Leu	Ala	Asp	Val	Arg	Ser	Pro	Gly	Phe	Lys	Asn	Asp	605	610	615
Thr	Leu	Arg	Ser	Gly	Val	Val	Ser	Val	Val	Asp	Ser	Leu	Leu	Cys	620	625	630
Glu	Glu	Gln	His	Glu	Asp	His	Gly	Ile	Pro	Val	Ser	Val	Thr	Asp	635	640	645
Asn	Met	Phe	Cys	Ala	Ser	Trp	Glu	Pro	Thr	Ala	Pro	Ser	Asp	Ile	650	655	660
Cys	Thr	Ala	Glu	Thr	Gly	Gly	Ile	Ala	Ala	Val	Ser	Phe	Pro	Gly	665	670	675
Arg	Ala	Ser	Pro	Glu	Pro	Arg	Trp	His	Leu	Met	Gly	Leu	Val	Ser	680	685	690
Trp	Ser	Tyr	Asp	Lys	Thr	Cys	Ser	His	Arg	Leu	Ser	Thr	Ala	Phe	695	700	705
Thr	Lys	Val	Leu	Pro	Phe	Lys	Asp	Trp	Ile	Glu	Arg	Asn	Met	Lys	710	715	720

<210> 39

<211> 2571

<212> DNA

<213> Homo Sapien

<400> 39

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ttgtgatcta ctgattgtgg gggcatggca aggtttgctt aaaggagctt 150

ggctggtttg ggcccttgta gctgacagaa ggtggccagg gagaatgcag 200

cacactgctc ggagaatgaa ggcgcttctg ttgctggtct tgccttggt 250

cagtcctgct aactacattg acaatgtggg caacctgcac ttcctgtatt 300

cagaactctg taaagggtgcc tcccactacg gcctgaccaa agataggaag 350

aggcgctcac aagatggctg tccagacggc tgtgcgagcc tcacagccac 400

ggctccctcc ccagagggtt ctgcagctgc caccatctcc ttaatgacag 450

acgagcctgg cctagacaac cctgcctacg tgcctcggc agaggacggg 500

cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc 550

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<210> 40  
<211> 632  
<212> PRT  
<213> Homo Sapien

<400> 40  
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20 25 30  
Leu Cys Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys  
35 40 45  
Arg Arg Ser Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr  
50 55 60  
Ala Thr Ala Pro Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser  
65 70 75  
Leu Met Thr Asp Glu Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser  
80 85 90  
Ser Ala Glu Asp Gly Gln Pro Ala Ile Ser Pro Val Asp Ser Gly  
95 100 105  
Arg Ser Asn Arg Thr Arg Ala Arg Pro Phe Glu Arg Ser Thr Ile  
110 115 120  
Arg Ser Arg Ser Phe Lys Lys Ile Asn Arg Ala Leu Ser Val Leu

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				140					145					150
Gly	Arg	Glu	Asn	Ser	Glu	Asn	Thr	Thr	Ala	Pro	Glu	Val	Phe	Pro
				155					160					165
Arg	Leu	Tyr	His	Leu	Ile	Pro	Asp	Gly	Glu	Ile	Thr	Ser	Ile	Lys
				170					175					180
Ile	Asn	Arg	Val	Asp	Pro	Ser	Glu	Ser	Leu	Ser	Ile	Arg	Leu	Val
				185					190					195
Gly	Gly	Ser	Glu	Thr	Pro	Leu	Val	His	Ile	Ile	Ile	Gln	His	Ile
				200					205					210
Tyr	Arg	Asp	Gly	Val	Ile	Ala	Arg	Asp	Gly	Arg	Leu	Leu	Pro	Gly
				215					220					225
Asp	Ile	Ile	Leu	Lys	Val	Asn	Gly	Met	Asp	Ile	Ser	Asn	Val	Pro
				230					235					240
His	Asn	Tyr	Ala	Val	Arg	Leu	Leu	Arg	Gln	Pro	Cys	Gln	Val	Leu
				245					250					255
Trp	Leu	Thr	Val	Met	Arg	Glu	Gln	Lys	Phe	Arg	Ser	Arg	Asn	Asn
				260					265					270
Gly	Gln	Ala	Pro	Asp	Ala	Tyr	Arg	Pro	Arg	Asp	Asp	Ser	Phe	His
				275					280					285
Val	Ile	Leu	Asn	Lys	Ser	Ser	Pro	Glu	Glu	Gln	Leu	Gly	Ile	Lys
				290					295					300
Leu	Val	Arg	Lys	Val	Asp	Glu	Pro	Gly	Val	Phe	Ile	Phe	Asn	Val
				305					310					315
Leu	Asp	Gly	Gly	Val	Ala	Tyr	Arg	His	Gly	Gln	Leu	Glu	Glu	Asn
				320					325					330
Asp	Arg	Val	Leu	Ala	Ile	Asn	Gly	His	Asp	Leu	Arg	Tyr	Gly	Ser
				335					340					345
Pro	Glu	Ser	Ala	Ala	His	Leu	Ile	Gln	Ala	Ser	Glu	Arg	Arg	Val
				350					355					360
His	Leu	Val	Val	Ser	Arg	Gln	Val	Arg	Gln	Arg	Ser	Pro	Asp	Ile
				365					370					375
Phe	Gln	Glu	Ala	Gly	Trp	Asn	Ser	Asn	Gly	Ser	Trp	Ser	Pro	Gly
				380					385					390
Pro	Gly	Glu	Arg	Ser	Asn	Thr	Pro	Lys	Pro	Leu	His	Pro	Thr	Ile
				395					400					405
Thr	Cys	His	Glu	Lys	Val	Val	Asn	Ile	Gln	Lys	Asp	Pro	Gly	Glu

410					415					420				
Ser	Leu	Gly	Met	Thr	Val	Ala	Gly	Gly	Ala	Ser	His	Arg	Glu	Trp
				425					430					435
Asp	Leu	Pro	Ile	Tyr	Val	Ile	Ser	Val	Glu	Pro	Gly	Gly	Val	Ile
				440					445					450
Ser	Arg	Asp	Gly	Arg	Ile	Lys	Thr	Gly	Asp	Ile	Leu	Leu	Asn	Val
				455					460					465
Asp	Gly	Val	Glu	Leu	Thr	Glu	Val	Ser	Arg	Ser	Glu	Ala	Val	Ala
				470					475					480
Leu	Leu	Lys	Arg	Thr	Ser	Ser	Ser	Ile	Val	Leu	Lys	Ala	Leu	Glu
				485					490					495
Val	Lys	Glu	Tyr	Glu	Pro	Gln	Glu	Asp	Cys	Ser	Ser	Pro	Ala	Ala
				500					505					510
Leu	Asp	Ser	Asn	His	Asn	Met	Ala	Pro	Pro	Ser	Asp	Trp	Ser	Pro
				515					520					525
Ser	Trp	Val	Met	Trp	Leu	Glu	Leu	Pro	Arg	Cys	Leu	Tyr	Asn	Cys
				530					535					540
Lys	Asp	Ile	Val	Leu	Arg	Arg	Asn	Thr	Ala	Gly	Ser	Leu	Gly	Phe
				545					550					555
Cys	Ile	Val	Gly	Gly	Tyr	Glu	Glu	Tyr	Asn	Gly	Asn	Lys	Pro	Phe
				560					565					570
Phe	Ile	Lys	Ser	Ile	Val	Glu	Gly	Thr	Pro	Ala	Tyr	Asn	Asp	Gly
				575					580					585
Arg	Ile	Arg	Cys	Gly	Asp	Ile	Leu	Leu	Ala	Val	Asn	Gly	Arg	Ser
				590					595					600
Thr	Ser	Gly	Met	Ile	His	Ala	Cys	Leu	Ala	Arg	Leu	Leu	Lys	Glu
				605					610					615
Leu	Lys	Gly	Arg	Ile	Thr	Leu	Thr	Ile	Val	Ser	Trp	Pro	Gly	Thr
				620					625					630

Phe Leu

<210> 41

<211> 1964

<212> DNA

<213> Homo Sapien

<400> 41

accaggcatt gtatcttcag ttgtcatcaa gttcgcaatc agattggaaa 50

agctcaactt gaagctttct tgcctgcagt gaagcagaga gatagatatt 100

attcacgtaa taaaaaacat gggcttcaac ctgactttcc acctttccta 150  
 caaattccga ttactgttgc tgttgacttt gtgcctgaca gtggttgggt 200  
 gggccaccag taactacttc gtgggtgccca ttcaagagat tcctaaagca 250  
 aaggagttca tggctaattt ccataagacc ctcatTTtgg ggaagggaaa 300  
 aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350  
 cttctgtgtc tccttacctc agaggccaga gcaagctcat tttcaaacca 400  
 gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450  
 ccggtatcgc cctcaggaat gtaaagcttt acagagggtc gccatcctcg 500  
 ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550  
 catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600  
 ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650  
 atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700  
 gtggacctgg tacccgagaa tgactttaac ctttacaagt gtgaggagca 750  
 tcccaagcat ctggtggttg gcaggaacag cactgggtac aggttacgtt 800  
 acagtggata ttttgggggt gttactgccc taagcagaga gcagtttttc 850  
 aaggtgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900  
 tgacctcaga ctcagggttg agctccaaag aatgaaaatt tcccggtccc 950  
 tgctgaagt gggtaaatat acaatggtct tccacactag agacaaaggc 1000  
 aatgaggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050  
 ctggagaaca gatgggttga gtagttgttc ttataaatta gtatctgtgg 1100  
 aacacaatcc tttatatatc aacatcacag tggatttctg gtttgggtgca 1150  
 tgaccctgga tcttttgggtg atgtttggaa gaactgattc tttgtttgca 1200  
 ataattttgg cctagagact tcaaatagta gcacacatta agaacctgtt 1250  
 acagctcatt gttgagctga atttttcctt tttgtatttt cttagcagag 1300  
 ctctgtgtga tgtagagtat aaaacagttg taacaagaca gctttcttag 1350  
 tcattttgat catgagggtt aaatattgta atatggatac ttgaaggact 1400  
 ttatataaaa ggatgactca aaggataaaa tgaacgctat ttgaggactc 1450  
 tggttgaagg agatttattt aaatttgaag taatatatta tgggataaaa 1500  
 ggccacagga aataagactg ctgaatgtct gagagaacca gagttgttct 1550

cgtccaaggt agaaaggtac gaagatacaa tactgttatt catttatacct 1600  
 gtacaatcat ctgtgaagtg gtggtgtcag gtgagaaggc gtccacaaaa 1650  
 gaggggagaa aaggcgacga atcaggacac agtgaacttg ggaatgaaga 1700  
 ggtagcagga ggggtggagtg tcggctgcaa aggcagcagt agctgagctg 1750  
 gttgcaggtg ctgatagcct tcaggggagg acctgcccag gtatgccttc 1800  
 cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850  
 tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900  
 acatattaac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950  
 gtgaaaaagc aaaa 1964

<210> 42  
 <211> 344  
 <212> PRT  
 <213> Homo Sapien

<400> 42  
 Met Gly Phe Asn Leu Thr Phe His Leu Ser Tyr Lys Phe Arg Leu  
 1 5 10 15  
 Leu Leu Leu Leu Thr Leu Cys Leu Thr Val Val Gly Trp Ala Thr  
 20 25 30  
 Ser Asn Tyr Phe Val Gly Ala Ile Gln Glu Ile Pro Lys Ala Lys  
 35 40 45  
 Glu Phe Met Ala Asn Phe His Lys Thr Leu Ile Leu Gly Lys Gly  
 50 55 60  
 Lys Thr Leu Thr Asn Glu Ala Ser Thr Lys Lys Val Glu Leu Asp  
 65 70 75  
 Asn Cys Pro Ser Val Ser Pro Tyr Leu Arg Gly Gln Ser Lys Leu  
 80 85 90  
 Ile Phe Lys Pro Asp Leu Thr Leu Glu Glu Val Gln Ala Glu Asn  
 95 100 105  
 Pro Lys Val Ser Arg Gly Arg Tyr Arg Pro Gln Glu Cys Lys Ala  
 110 115 120  
 Leu Gln Arg Val Ala Ile Leu Val Pro His Arg Asn Arg Glu Lys  
 125 130 135  
 His Leu Met Tyr Leu Leu Glu His Leu His Pro Phe Leu Gln Arg  
 140 145 150  
 Gln Gln Leu Asp Tyr Gly Ile Tyr Val Ile His Gln Ala Glu Gly  
 155 160 165

Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	170	175	180
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	185	190	195
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	200	205	210
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	215	220	225
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	230	235	240
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	245	250	255
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln	260	265	270
Arg	Met	Lys	Ile	Ser	Arg	Pro	Leu	Pro	Glu	Val	Gly	Lys	Tyr	Thr	275	280	285
Met	Val	Phe	His	Thr	Arg	Asp	Lys	Gly	Asn	Glu	Val	Asn	Ala	Glu	290	295	300
Arg	Met	Lys	Leu	Leu	His	Gln	Val	Ser	Arg	Val	Trp	Arg	Thr	Asp	305	310	315
Gly	Leu	Ser	Ser	Cys	Ser	Tyr	Lys	Leu	Val	Ser	Val	Glu	His	Asn	320	325	330
Pro	Leu	Tyr	Ile	Asn	Ile	Thr	Val	Asp	Phe	Trp	Phe	Gly	Ala		335	340	

<210> 43  
 <211> 485  
 <212> DNA  
 <213> Homo Sapien

<400> 43  
 gctcaagacc cagcagtggg acagccagac agacggcacg atggcactga 50  
 gctcccagat ctgggccgct tgcctcctgc tcctcctcct cctcgccagc 100  
 ctgaccagtg gctctgtttt cccacaacag acgggacaac ttgcagagct 150  
 gcaacccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200  
 agaggcgaag gaggcgagac acccaacttc ccactctgcat tttctgctgc 250  
 ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300  
 acctgccctg ccccgctccc ctcccttcct tatttattcc tgctgcccga 350  
 gaacataggt cttggaataa aatggctggg tcttttgttt tccaaaaaaa 400

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 44

<211> 84

<212> PRT

<213> Homo Sapien

<400> 44

Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu  
1 5 10 15

Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln  
20 25 30

Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala  
35 40 45

Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp  
50 55 60

Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg  
65 70 75

Ser Lys Cys Gly Met Cys Cys Lys Thr  
80

<210> 45

<211> 1076

<212> DNA

<213> Homo Sapien

<400> 45

gtggcttcat ttcagtggct gacttccaga gagcaatatg gctgggtccc 50

caacatgcct caccctcatc tatatccttt ggcagctcac agggtcagca 100

gcctctggac ccgtgaaaga gctggtcggt tccgttggtg gggccgtgac 150

tttccccctg aagtccaaag taaagcaagt tgactctatt gtctggacct 200

tcaacacaac ccctcttgtc accatacagc cagaaggggg cactatcata 250

gtgacccaaa atcgtaatag ggagagagta gacttcccag atggaggcta 300

ctccctgaag ctgagcaaac tgaagaagaa tgactcaggg atctactatg 350

tggggatata cagctcatca ctccagcagc cctccacca ggagtacgtg 400

ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450

gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattggaac 500

atgggggaaga ggatgtgatt tatacctgga aggccttggg gcaagcagcc 550

aatgagtccc ataatgggtc catcctcccc atctcctgga gatggggaga 600  
aagtgatatg accttcatct gcgttgccag gaaccctgtc agcagaaaact 650  
tctcaagccc catccttgcc aggaagctct gtgaagggtc tgctgatgac 700  
ccagattcct ccatggctct cctgtgtctc ctggttggtc cctcctgct 750  
cagtctcttt gtactggggc tatttctttg gtttctgaag agagagagac 800  
aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaaact 850  
cctaacatat gccccattc tggagagaac acagagtacg acacaatccc 900  
tcacactaat agaacaatcc taaaggaaga tccagcaaact acgggtttact 950  
ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1000  
atgccagaca caccaaggct attgcctat gagaatgtta tctagacagc 1050  
agtgcactcc cctaagtctc tgctca 1076

<210> 46  
<211> 335  
<212> PRT  
<213> Homo Sapien

<400> 46  
Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp  
1 5 10 15  
Gln Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val  
20 25 30  
Gly Ser Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val  
35 40 45  
Lys Gln Val Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu  
50 55 60  
Val Thr Ile Gln Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn  
65 70 75  
Arg Asn Arg Glu Arg Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu  
80 85 90  
Lys Leu Ser Lys Leu Lys Lys Asn Asp Ser Gly Ile Tyr Tyr Val  
95 100 105  
Gly Ile Tyr Ser Ser Ser Leu Gln Gln Pro Ser Thr Gln Glu Tyr  
110 115 120  
Val Leu His Val Tyr Glu His Leu Ser Lys Pro Lys Val Thr Met  
125 130 135  
Gly Leu Gln Ser Asn Lys Asn Gly Thr Cys Val Thr Asn Leu Thr  
140 145 150



Cys Cys Met Glu His Gly Glu Glu Asp Val Ile Tyr Thr Trp Lys	155	160	165
Ala Leu Gly Gln Ala Ala Asn Glu Ser His Asn Gly Ser Ile Leu	170	175	180
Pro Ile Ser Trp Arg Trp Gly Glu Ser Asp Met Thr Phe Ile Cys	185	190	195
Val Ala Arg Asn Pro Val Ser Arg Asn Phe Ser Ser Pro Ile Leu	200	205	210
Ala Arg Lys Leu Cys Glu Gly Ala Ala Asp Asp Pro Asp Ser Ser	215	220	225
Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu	230	235	240
Phe Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Gln	245	250	255
Glu Glu Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu	260	265	270
Thr Pro Asn Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp	275	280	285
Thr Ile Pro His Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala	290	295	300
Asn Thr Val Tyr Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn	305	310	315
Pro His Ser Leu Leu Thr Met Pro Asp Thr Pro Arg Leu Phe Ala	320	325	330
Tyr Glu Asn Val Ile	335		

<210> 47  
 <211> 766  
 <212> DNA  
 <213> Homo Sapien

<400> 47  
 ggctcgagcg tttctgagcc aggggtgacc atgacctgct gcgaaggatg 50  
 gacatcctgc aatggattca gcctgctggt tctactgctg ttaggagtag 100  
 ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaattt 150  
 tctcaaaacc ccatctcttg ctttgagtgg tggttcccag gaattatagg 200  
 agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250  
 aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300

agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350  
 ggctctctta aaaggctctc tcatgtgtaa ttctccaagc aacagtaatg 400  
 ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450  
 ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500  
 caataaaccc accagtaacg acaccatggc gagtggctgg agagcatcta 550  
 gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600  
 gtatttttag gtctattgct tggttgaatt ctggaggtcc tgtttgggct 650  
 cagtcagata gtcacgggtt tccttggctg tctgtgtgga gtctctaagc 700  
 gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750  
 gtttgaaaaa aaaaaa 766

<210> 48  
 <211> 229  
 <212> PRT  
 <213> Homo Sapien

<400> 48  
 Met Thr Cys Cys Glu Gly Trp Thr Ser Cys Asn Gly Phe Ser Leu  
 1 5 10 15  
 Leu Val Leu Leu Leu Gly Val Val Leu Asn Ala Ile Pro Leu  
 20 25 30  
 Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile  
 35 40 45  
 Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu  
 50 55 60  
 Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg  
 65 70 75  
 Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe  
 80 85 90  
 Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser  
 95 100 105  
 Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser  
 110 115 120  
 Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp  
 125 130 135  
 Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser  
 140 145 150  
 Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr

155	160	165
Met Ala Ser Gly Trp Arg Ala Ser Ser Phe His Phe Asp Ser Glu		
170	175	180
Glu Asn Lys His Arg Leu Ile His Phe Ser Val Phe Leu Gly Leu		
185	190	195
Leu Leu Val Gly Ile Leu Glu Val Leu Phe Gly Leu Ser Gln Ile		
200	205	210
Val Ile Gly Phe Leu Gly Cys Leu Cys Gly Val Ser Lys Arg Arg		
215	220	225

Ser Gln Ile Val

<210> 49  
 <211> 636  
 <212> DNA  
 <213> Homo Sapien

<400> 49  
 atccgttctc tgcgctgcc a gctcaggtga gccctcgcca aggtgacctc 50  
 gcaggacact ggtgaaggag cagtgaggaa cctgcagagt cacacagttg 100  
 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150  
 cgccccagtg cctctcccc tgcagccctg cccctcgaac tgtgacatgg 200  
 agagagtgac cctggccctt ctctactgg caggcctgac tgccttgga 250  
 gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300  
 aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350  
 ggatcgcggc agttctgagt ggcaa atgca aatacaagag cagccagaag 400  
 cagcacagtc ctgtacctga gaaggccatc ccactcatca ctccaggctc 450  
 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500  
 taacactggc cccagcacc tcctccctg ggaggcctta tcctcaagga 550  
 aggacttctc tccaagggca ggctgttagg cccctttctg atcaggaggc 600  
 ttctttatga attaaactcg cccaccacc ccctca 636

<210> 50  
 <211> 89  
 <212> PRT  
 <213> Homo Sapien

<400> 50  
 Met Glu Arg Val Thr Leu Ala Leu Leu Leu Leu Ala Gly Leu Thr  
 1 5 10 15

Ala	Leu	Glu	Ala	Asn	Asp	Pro	Phe	Ala	Asn	Lys	Asp	Asp	Pro	Phe
				20					25					30
Tyr	Tyr	Asp	Trp	Lys	Asn	Leu	Gln	Leu	Ser	Gly	Leu	Ile	Cys	Gly
				35					40					45
Gly	Leu	Leu	Ala	Ile	Ala	Gly	Ile	Ala	Ala	Val	Leu	Ser	Gly	Lys
				50					55					60
Cys	Lys	Tyr	Lys	Ser	Ser	Gln	Lys	Gln	His	Ser	Pro	Val	Pro	Glu
				65					70					75
Lys	Ala	Ile	Pro	Leu	Ile	Thr	Pro	Gly	Ser	Ala	Thr	Thr	Cys	
				80					85					

<210> 51  
 <211> 1734  
 <212> DNA  
 <213> Homo Sapien

<400> 51  
 gtggactctg agaagcccag gcagttgagg acaggagaga gaaggctgca 50  
 gaccagagg gagggaggac agggagtcgg aaggaggagg acagaggagg 100  
 gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150  
 agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200  
 cctggcctgc ctctgctgg ccctctgcct gggcagtggg gaggctggcc 250  
 ccctgcagag cggagaggaa agcactggga caaatattgg ggaggccctt 300  
 ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350  
 caaagaggcc ggaggggcag ctggctctaa agtcagttag gcccttggcc 400  
 aagggaccag agaagcagtt ggcactggag tcaggcaggt tccaggcttt 450  
 ggcgcagcag atgctttggg caacagggtc ggggaagcag cccatgctct 500  
 gggaaacact gggcacgaga ttggcagaca ggcagaagat gtcattcgac 550  
 acggagcaga tgctgtccgc ggctcctggc aggggggtgcc tggccacagt 600  
 ggtgcttggg aaacttctgg aggccatggc atctttggct ctcaaggtgg 650  
 ccttgagggc cagggccagg gcaatcctgg aggtctgggg actccgtggg 700  
 tccacggata ccccgaaac tcagcaggca gctttggaat gaatcctcag 750  
 ggagctccct ggggtcaagg aggcaatgga gggccaccaa actttgggac 800  
 caacactcag ggagctgtgg ccagcctgg ctatggttca gtgagagcca 850  
 gcaaccagaa tgaaggggtgc acgaatcccc caccatctgg ctcaggtgga 900

ggctccagca actctggggg aggcagcggc tcacagtcgg gcagcagtgg 950  
 cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000  
 gcagtggcag cagcagtggc agcagcagtg gcggcagcag tggcggcagc 1050  
 agtgggtggca gcagtggcaa cagtgggtggc agcagaggtg acagcggcag 1100  
 tgagtctctc tggggatcca gcaccggctc ctctccggc aaccacggtg 1150  
 ggagcggcgg aggaaatgga cataaaccgc ggtgtgaaaa gccagggaat 1200  
 gaagcccgcg ggagcgggga atctgggatt cagggttca gaggacaggg 1250  
 agtttccagc aacatgaggg aaataagcaa agagggcaat cgcctccttg 1300  
 gaggtcttg agacaattat cgggggcaag ggtcgagctg gggcagtga 1350  
 ggaggtgacg ctgttggtg agtcaatact gtgaactctg agacgtctcc 1400  
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 ccgtgacctc cagacaagga gccaccagat tggatgggag ccccccact 1550  
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1734

<210> 52  
 <211> 440  
 <212> PRT  
 <213> Homo Sapien

<400> 52  
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 20 25 30  
 Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp  
 35 40 45  
 Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly  
 50 55 60  
 Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr  
 65 70 75  
 Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly  
 80 85 90

Ala	Ala	Asp	Ala	Leu	Gly	Asn	Arg	Val	Gly	Glu	Ala	Ala	His	Ala	95	100	105
Leu	Gly	Asn	Thr	Gly	His	Glu	Ile	Gly	Arg	Gln	Ala	Glu	Asp	Val	110	115	120
Ile	Arg	His	Gly	Ala	Asp	Ala	Val	Arg	Gly	Ser	Trp	Gln	Gly	Val	125	130	135
Pro	Gly	His	Ser	Gly	Ala	Trp	Glu	Thr	Ser	Gly	Gly	His	Gly	Ile	140	145	150
Phe	Gly	Ser	Gln	Gly	Gly	Leu	Gly	Gly	Gln	Gly	Gln	Gly	Asn	Pro	155	160	165
Gly	Gly	Leu	Gly	Thr	Pro	Trp	Val	His	Gly	Tyr	Pro	Gly	Asn	Ser	170	175	180
Ala	Gly	Ser	Phe	Gly	Met	Asn	Pro	Gln	Gly	Ala	Pro	Trp	Gly	Gln	185	190	195
Gly	Gly	Asn	Gly	Gly	Pro	Pro	Asn	Phe	Gly	Thr	Asn	Thr	Gln	Gly	200	205	210
Ala	Val	Ala	Gln	Pro	Gly	Tyr	Gly	Ser	Val	Arg	Ala	Ser	Asn	Gln	215	220	225
Asn	Glu	Gly	Cys	Thr	Asn	Pro	Pro	Pro	Ser	Gly	Ser	Gly	Gly	Gly	230	235	240
Ser	Ser	Asn	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gln	Ser	Gly	Ser	Ser	245	250	255
Gly	Ser	Gly	Ser	Asn	Gly	Asp	Asn	Asn	Asn	Gly	Ser	Ser	Ser	Gly	260	265	270
Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Gly	Ser	275	280	285
Ser	Gly	Gly	Ser	Ser	Gly	Gly	Ser	Ser	Gly	Asn	Ser	Gly	Gly	Ser	290	295	300
Arg	Gly	Asp	Ser	Gly	Ser	Glu	Ser	Ser	Trp	Gly	Ser	Ser	Thr	Gly	305	310	315
Ser	Ser	Ser	Gly	Asn	His	Gly	Gly	Ser	Gly	Gly	Gly	Asn	Gly	His	320	325	330
Lys	Pro	Gly	Cys	Glu	Lys	Pro	Gly	Asn	Glu	Ala	Arg	Gly	Ser	Gly	335	340	345
Glu	Ser	Gly	Ile	Gln	Gly	Phe	Arg	Gly	Gln	Gly	Val	Ser	Ser	Asn	350	355	360
Met	Arg	Glu	Ile	Ser	Lys	Glu	Gly	Asn	Arg	Leu	Leu	Gly	Gly	Ser	365	370	375

Gly	Asp	Asn	Tyr	Arg	Gly	Gln	Gly	Ser	Ser	Trp	Gly	Ser	Gly	Gly	380	385	390
Gly	Asp	Ala	Val	Gly	Gly	Val	Asn	Thr	Val	Asn	Ser	Glu	Thr	Ser	395	400	405
Pro	Gly	Met	Phe	Asn	Phe	Asp	Thr	Phe	Trp	Lys	Asn	Phe	Lys	Ser	410	415	420
Lys	Leu	Gly	Phe	Ile	Asn	Trp	Asp	Ala	Ile	Asn	Lys	Asp	Gln	Arg	425	430	435
Ser	Ser	Arg	Ile	Pro											440		

<210> 53  
 <211> 1676  
 <212> DNA  
 <213> Homo Sapien

<400> 53  
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 actcctgctg ctggttgtgg gctcctggct actcgcccg ctcctggctt 150  
 ggacctatgc cttctataac aactgccgcc ggctccagt tttccacag 200  
 cccccaaaac ggaactgggt ttggggtcac ctgggcctga tcactcctac 250  
 agaggagggc ttgaaggact cgaccagat gtcggccacc tattcccagg 300  
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 cctgacacca tccggtctat caccaatgcc tcagctgcca ttgcacccaa 400  
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 cagaaatgca tcttcagctt tgacagccat tgtcaggaga ggcccagtga 700  
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 agcatatcct ccagcacatg gactttctgt attacctct ccatgacggg 800  
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 agagcctgag gttacatccc ccagctccct tcatctcccg atgctgcacc 1250  
 caggacattg ttctcccaga tggccgagtc atccccaaag gcattacctg 1300  
 cctcatcgat attatagggg tccatcacia cccaactgtg tggccggatc 1350  
 ctgaggtcta cgacccttc cgctttgacc cagagaacag caaggggagg 1400  
 tcacctctgg cttttattcc tttctccgca gggcccagga actgcatcgg 1450  
 gcaggcgttc gccatggcgg agatgaaagt ggtcctggcg ttgatgctgc 1500  
 tgcacttccg gttcctgcc a gaccacactg agccccgcag gaagctggaa 1550  
 ttgatcatgc gcgccgagg cgggctttgg ctgcgggtgg agcccctgaa 1600  
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<210> 54

<211> 524

<212> PRT

<213> Homo Sapien

<400> 54

Met	Ser	Leu	Leu	Ser	Leu	Pro	Trp	Leu	Gly	Leu	Arg	Pro	Val	Ala
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Met	Ser	Pro	Trp	Leu	Leu	Leu	Leu	Val	Val	Gly	Ser	Trp	Leu
				20				25					30

Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys
				35					40					45

Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe
				50					55					60

Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys
				65					70					75

Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val
				80					85					90

Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp
				95					100					105



Thr	Ile	Arg	Ser	Ile	Thr	Asn	Ala	Ser	Ala	Ala	Ile	Ala	Pro	Lys	110	115	120
Asp	Asn	Leu	Phe	Ile	Arg	Phe	Leu	Lys	Pro	Trp	Leu	Gly	Glu	Gly	125	130	135
Ile	Leu	Leu	Ser	Gly	Gly	Asp	Lys	Trp	Ser	Arg	His	Arg	Arg	Met	140	145	150
Leu	Thr	Pro	Ala	Phe	His	Phe	Asn	Ile	Leu	Lys	Ser	Tyr	Ile	Thr	155	160	165
Ile	Phe	Asn	Lys	Ser	Ala	Asn	Ile	Met	Leu	Asp	Lys	Trp	Gln	His	170	175	180
Leu	Ala	Ser	Glu	Gly	Ser	Ser	Arg	Leu	Asp	Met	Phe	Glu	His	Ile	185	190	195
Ser	Leu	Met	Thr	Leu	Asp	Ser	Leu	Gln	Lys	Cys	Ile	Phe	Ser	Phe	200	205	210
Asp	Ser	His	Cys	Gln	Glu	Arg	Pro	Ser	Glu	Tyr	Ile	Ala	Thr	Ile	215	220	225
Leu	Glu	Leu	Ser	Ala	Leu	Val	Glu	Lys	Arg	Ser	Gln	His	Ile	Leu	230	235	240
Gln	His	Met	Asp	Phe	Leu	Tyr	Tyr	Leu	Ser	His	Asp	Gly	Arg	Arg	245	250	255
Phe	His	Arg	Ala	Cys	Arg	Leu	Val	His	Asp	Phe	Thr	Asp	Ala	Val	260	265	270
Ile	Arg	Glu	Arg	Arg	Arg	Thr	Leu	Pro	Thr	Gln	Gly	Ile	Asp	Asp	275	280	285
Phe	Phe	Lys	Asp	Lys	Ala	Lys	Ser	Lys	Thr	Leu	Asp	Phe	Ile	Asp	290	295	300
Val	Leu	Leu	Leu	Ser	Lys	Asp	Glu	Asp	Gly	Lys	Ala	Leu	Ser	Asp	305	310	315
Glu	Asp	Ile	Arg	Ala	Glu	Ala	Asp	Thr	Phe	Met	Phe	Gly	Gly	His	320	325	330
Asp	Thr	Thr	Ala	Ser	Gly	Leu	Ser	Trp	Val	Leu	Tyr	Asn	Leu	Ala	335	340	345
Arg	His	Pro	Glu	Tyr	Gln	Glu	Arg	Cys	Arg	Gln	Glu	Val	Gln	Glu	350	355	360
Leu	Leu	Lys	Asp	Arg	Asp	Pro	Lys	Glu	Ile	Glu	Trp	Asp	Asp	Leu	365	370	375
Ala	Gln	Leu	Pro	Phe	Leu	Thr	Met	Cys	Val	Lys	Glu	Ser	Leu	Arg	380	385	390

Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp
				395					400					405
Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys
				410					415					420
Leu	Ile	Asp	Ile	Ile	Gly	Val	His	His	Asn	Pro	Thr	Val	Trp	Pro
				425					430					435
Asp	Pro	Glu	Val	Tyr	Asp	Pro	Phe	Arg	Phe	Asp	Pro	Glu	Asn	Ser
				440					445					450
Lys	Gly	Arg	Ser	Pro	Leu	Ala	Phe	Ile	Pro	Phe	Ser	Ala	Gly	Pro
				455					460					465
Arg	Asn	Cys	Ile	Gly	Gln	Ala	Phe	Ala	Met	Ala	Glu	Met	Lys	Val
				470					475					480
Val	Leu	Ala	Leu	Met	Leu	Leu	His	Phe	Arg	Phe	Leu	Pro	Asp	His
				485					490					495
Thr	Glu	Pro	Arg	Arg	Lys	Leu	Glu	Leu	Ile	Met	Arg	Ala	Glu	Gly
				500					505					510
Gly	Leu	Trp	Leu	Arg	Val	Glu	Pro	Leu	Asn	Val	Gly	Leu	Gln	
				515					520					

<210> 55  
 <211> 644  
 <212> DNA  
 <213> Homo Sapien

<400> 55  
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 tgtgttttgc acttaccctg tgttctgcct tttggtggca taacaaggga 150  
 cttgcactta tcttctgcat tttgcagtct ttggcattga cgtggtacag 200  
 cctttccttc ataccatttg caagggatgc tgtgaagaag tgttttgccg 250  
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 tggacagaag ctggtggaca gttttgtaac tatcttcgaa acctctgtct 350  
 tacagacatg tgccttttat cttgcagcaa tgtgttgctt gtgattcgaa 400  
 catttgaggg ttacttttgg aagcaacaat acattctcga acctgaatgt 450  
 cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500  
 cctcatgtac ctgtttcctc tctggatgtt gtccactga attcccatga 550  
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aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 56

<211> 77

<212> PRT

<213> Homo Sapien

<400> 56

Met	Gly	Pro	Val	Lys	Gln	Leu	Lys	Arg	Met	Phe	Glu	Pro	Thr	Arg
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Leu	Ile	Ala	Thr	Ile	Met	Val	Leu	Leu	Cys	Phe	Ala	Leu	Thr	Leu
				20					25					30

Cys	Ser	Ala	Phe	Trp	Trp	His	Asn	Lys	Gly	Leu	Ala	Leu	Ile	Phe
				35					40					45

Cys	Ile	Leu	Gln	Ser	Leu	Ala	Leu	Thr	Trp	Tyr	Ser	Leu	Ser	Phe
				50					55					60

Ile	Pro	Phe	Ala	Arg	Asp	Ala	Val	Lys	Lys	Cys	Phe	Ala	Val	Cys
				65					70					75

Leu Ala

<210> 57

<211> 3334

<212> DNA

<213> Homo Sapien

<400> 57

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cccagaccga gttccagtac tttgagtcga aggggctccc tgccgagctg 150

aagtccattt tcaagctcag tgtcttcac ccctcccagg aattctccac 200

ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250

atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300

aagaagctga ggctggtggt taagattttg gacaaaaaga atgatggacg 350

cattgacgcg caggagatca tgcagtcctt gcgggacttg ggagtcaaga 400

tatctgaaca gcaggcagaa aaaattctca agagcatgga taaaaacggc 450

acgatgacca tcgactggaa cgagtggaga gactaccacc tcctccacc 500

cgtggaaaac atccccgaga tcattcctta ctggaagcat tccacgatct 550

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aggcagacgg ggatgtggtg gagacacctg gtggcaggag gtggggcagg 650

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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 3334

<210> 58

<211> 469

<212> PRT

<213> Homo Sapien

<400> 58

Met Leu Cys Leu Cys Leu Tyr Val Pro Val Ile Gly Glu Ala Gln

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Thr Glu Phe Gln Tyr Phe Glu Ser Lys Gly Leu Pro Ala Glu Leu	20	25	30
Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe	35	40	45
Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp	50	55	60
Lys Asp Leu Asp Gly Gln Leu Asp Phe Glu Glu Phe Val His Tyr	65	70	75
Leu Gln Asp His Glu Lys Lys Leu Arg Leu Val Phe Lys Ile Leu	80	85	90
Asp Lys Lys Asn Asp Gly Arg Ile Asp Ala Gln Glu Ile Met Gln	95	100	105
Ser Leu Arg Asp Leu Gly Val Lys Ile Ser Glu Gln Gln Ala Glu	110	115	120
Lys Ile Leu Lys Ser Met Asp Lys Asn Gly Thr Met Thr Ile Asp	125	130	135
Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val Glu Asn	140	145	150
Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe Asp	155	160	165
Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu	170	175	180
Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Gly	185	190	195
Ala Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu	200	205	210
Lys Val Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly	215	220	225
Ile Val Gly Gly Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg	230	235	240
Ser Leu Trp Arg Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro	245	250	255
Glu Ser Ala Ile Lys Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu	260	265	270
Val Gly Ser Asp Gln Glu Thr Leu Arg Ile His Glu Arg Leu Val	275	280	285
Ala Gly Ser Leu Ala Gly Ala Ile Ala Gln Ser Ser Ile Tyr Pro			

290								295				300			
Met	Glu	Val	Leu	Lys	Thr	Arg	Met	Ala	Leu	Arg	Lys	Thr	Gly	Gln	
				305					310					315	
Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg	Arg	Ile	Leu	Ala	Arg	Glu	
				320					325					330	
Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val	Pro	Asn	Met	Leu	Gly	
				335					340					345	
Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu	Thr	Leu	
				350					355					360	
Lys	Asn	Ala	Trp	Leu	Gln	His	Tyr	Ala	Val	Asn	Ser	Ala	Asp	Pro	
				365					370					375	
Gly	Val	Phe	Val	Leu	Leu	Ala	Cys	Gly	Thr	Met	Ser	Ser	Thr	Cys	
				380					385					390	
Gly	Gln	Leu	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	
				395					400					405	
Gln	Ala	Gln	Ala	Ser	Ile	Glu	Gly	Ala	Pro	Glu	Val	Thr	Met	Ser	
				410					415					420	
Ser	Leu	Phe	Lys	His	Ile	Leu	Arg	Thr	Glu	Gly	Ala	Phe	Gly	Leu	
				425					430					435	
Tyr	Arg	Gly	Leu	Ala	Pro	Asn	Phe	Met	Lys	Val	Ile	Pro	Ala	Val	
				440					445					450	
Ser	Ile	Ser	Tyr	Val	Val	Tyr	Glu	Asn	Leu	Lys	Ile	Thr	Leu	Gly	
				455					460					465	

Val Gln Ser Arg

<210> 59  
 <211> 1658  
 <212> DNA  
 <213> Homo Sapien

<400> 59  
 ggaaggcagc ggcagctcca ctcagccagt acccagatac gctgggaacc 50  
 ttccccagcc atggcttccc tggggcagat cctcttctgg agcataatta 100  
 gcatcatcat tattctggct ggagcaattg cactcatcat tggctttggt 150  
 atttcaggga gacactccat cacagtcact actgtcgcct cagctgggaa 200  
 cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250  
 tttctgatat cgtgatacaa tggctgaagg aaggtgtttt aggcttggtc 300  
 catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350

cagaggccgg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct 400  
ctttgcggct gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450  
tatatcatca cttctaaagg caaggggaat gctaaccctg agtataaaac 500  
tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550  
agaccttgcg gtgtgaggct ccccgatggg tccccagcc cacagtgggc 600  
tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650  
cagctttgag ctgaactctg agaatgtgac catgaagggt gtgtctgtgc 700  
tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaatgac 750  
attgccaaag caacagggga tatcaaagt acagaatcgg agatcaaaag 800  
gcggagtcac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850  
ctttctttgc catcagctgg gcacttctgc ctctcagccc ttacctgatg 900  
ctaaaataat gtgccttggc cacaaaaaag catgcaaagt cattgttaca 950  
acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000  
ttctgggagg aaatgaattc atatctagaa gtctggagt agcaaacaag 1050  
agcaagaaac aaaaagaagc caaaagcaga aggctccaat atgaacaaga 1100  
taaactctatc ttcaaagaca tattagaagt tgggaaaata attcatgtga 1150  
actagacaag tgtgttaaga gtgataagta aaatgcacgt ggagacaagt 1200  
gcatccccag atctcaggga cctccccctg cctgtcacct ggggagttag 1250  
aggacaggat agtgcattgt ctttgtctct gaatttttag ttatatgtgc 1300  
tgtaatgttg ctctgaggaa gccctggaa agtctatccc aacatatcca 1350  
catcttatat tccacaaatt aagctgtagt atgtacccta agacgtgct 1400  
aattgactgc cacttcgcaa ctcaggggcg gctgcatttt agtaatgggt 1450  
caaatgattc actttttatg atgcttccaa aggtgccttg gcttctcttc 1500  
ccaactgaca aatgccaaag ttgagaaaaa tgatcataat tttagcataa 1550  
acagagcagt cggggacacc gattttataa ataaactgag caccttcttt 1600  
ttaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650  
aaaaaaaa 1658

<210> 60  
<211> 282



<212> PRT  
 <213> Homo Sapien

<400> 60

Met	Ala	Ser	Leu	Gly	Gln	Ile	Leu	Phe	Trp	Ser	Ile	Ile	Ser	Ile	1	5	10	15
Ile	Ile	Ile	Leu	Ala	Gly	Ala	Ile	Ala	Leu	Ile	Ile	Gly	Phe	Gly	20	25	30	
Ile	Ser	Gly	Arg	His	Ser	Ile	Thr	Val	Thr	Thr	Val	Ala	Ser	Ala	35	40	45	
Gly	Asn	Ile	Gly	Glu	Asp	Gly	Ile	Leu	Ser	Cys	Thr	Phe	Glu	Pro	50	55	60	
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly	65	70	75	
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu	80	85	90	
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala	95	100	105	
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val	110	115	120	
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser	125	130	135	
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe	140	145	150	
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr	155	160	165	
Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro	Gln	Pro	Thr	Val	Val	170	175	180	
Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe	Ser	Glu	Val	Ser	185	190	195	
Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr	Met	Lys	Val	200	205	210	
Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr	Ser	Cys	215	220	225	
Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys	Val	230	235	240	
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn	245	250	255	
Ser	Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp	260	265	270	

Ala Leu Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys  
 275 280

<210> 61  
 <211> 1617  
 <212> DNA  
 <213> Homo Sapien

<400> 61  
 tgacgtcaga atcaccatgg ccagctatcc ttaccggcag ggctgcccag 50  
 gagctgcagg acaagcacca ggagcccctc cgggtagcta ctaccctgga 100  
 ccccccaata gtggagggca gtatggtagt gggctacccc ctggtggtgg 150  
 ttatgggggt cctgcccctg gagggcctta tggaccacca gctggtggag 200  
 ggccctatgg acacccaat cctgggatgt tcccctctgg aactccagga 250  
 ggaccatatg gcggtgcagc tcccgggggc ccctatggtc agccacctcc 300  
 aagttcctac ggtgcccagc agcctgggct ttatggacag ggtggcgccc 350  
 ctcccaatgt ggatcctgag gcctactcct ggttccagtc ggtggactca 400  
 gatcacagtg gctatatctc catgaaggag ctaaagcagg ccctggtcaa 450  
 ctgcaattgg tcttcattca atgatgagac ctgcctcatg atgataaaca 500  
 tgtttgacaa gaccaagtca ggccgcacg atgtctacgg cttctcagcc 550  
 ctgtggaaat tcatccagca gtggaagaac ctcttccagc agtatgaccg 600  
 ggaccgctcg ggctccatta gctacacaga gctgcagcaa gctctgtccc 650  
 aaatgggcta caacctgagc cccagttca cccagcttct ggtctcccgc 700  
 tactgcccac gctctgcaa tcttgccatg cagcttgacc gttcatcca 750  
 ggtgtgcacc cagctgcagg tgctgacaga ggccttccgg gagaaggaca 800  
 cagctgtaca aggcaacatc cggctcagct tcgaggactt cgtcaccatg 850  
 acagcttctc ggatgctatg acccaaccat ctgtggagag tggagtgcac 900  
 cagggacctt tcttggttc ttagagttag agaagtatgt ggacatctct 950  
 tcttttctg tccctctaga agaacattct cccttgcttg atgcaacact 1000  
 gttccaaaag agggtgagga gtcctgcac atagccacca aatagtgagg 1050  
 accggggctg aggccacaca gataggggcc tgatggagga gaggatagaa 1100  
 gttgaatgtc ctgatggcca tgagcagttg agtggcacag cctggcacca 1150  
 ggagcagggtc cttgtaatgg agttagtgtc cagtcagctg agctccaccc 1200

tgatgccagt ggtgagtgtt catcggcctg ttaccgtag tacctgtgtt 1250  
 ccctcaccag gccatcctgt caaacgagcc cattttctcc aaagtggaat 1300  
 ctgaccaagc atgagagaga tctgtctatg ggaccagtgg cttggattct 1350  
 gccacacca taaatccttg tgtgttaact tctagctgcc tggggctggc 1400  
 cctgctcaga caaatctgct ccctgggcat ctttggccag gcttctgccc 1450  
 cctgcagctg ggacccctca cttgcctgcc atgctctgct cggcttcagt 1500  
 ctccaggaga cagtggtcac ctctccctgc caatactttt tttaatttgc 1550  
 attttttttc atttggggcc aaaagtcag tgaaattgta agcttcaata 1600  
 aaaggatgaa actctga 1617

<210> 62  
 <211> 284  
 <212> PRT  
 <213> Homo Sapien

<400> 62  
 Met Ala Ser Tyr Pro Tyr Arg Gln Gly Cys Pro Gly Ala Ala Gly  
 1 5 10 15  
 Gln Ala Pro Gly Ala Pro Pro Gly Ser Tyr Tyr Pro Gly Pro Pro  
 20 25 30  
 Asn Ser Gly Gly Gln Tyr Gly Ser Gly Leu Pro Pro Gly Gly Gly  
 35 40 45  
 Tyr Gly Gly Pro Ala Pro Gly Gly Pro Tyr Gly Pro Pro Ala Gly  
 50 55 60  
 Gly Gly Pro Tyr Gly His Pro Asn Pro Gly Met Phe Pro Ser Gly  
 65 70 75  
 Thr Pro Gly Gly Pro Tyr Gly Gly Ala Ala Pro Gly Gly Pro Tyr  
 80 85 90  
 Gly Gln Pro Pro Pro Ser Ser Tyr Gly Ala Gln Gln Pro Gly Leu  
 95 100 105  
 Tyr Gly Gln Gly Gly Ala Pro Pro Asn Val Asp Pro Glu Ala Tyr  
 110 115 120  
 Ser Trp Phe Gln Ser Val Asp Ser Asp His Ser Gly Tyr Ile Ser  
 125 130 135  
 Met Lys Glu Leu Lys Gln Ala Leu Val Asn Cys Asn Trp Ser Ser  
 140 145 150  
 Phe Asn Asp Glu Thr Cys Leu Met Met Ile Asn Met Phe Asp Lys  
 155 160 165

Thr	Lys	Ser	Gly	Arg	Ile	Asp	Val	Tyr	Gly	Phe	Ser	Ala	Leu	Trp
				170					175					180
Lys	Phe	Ile	Gln	Gln	Trp	Lys	Asn	Leu	Phe	Gln	Gln	Tyr	Asp	Arg
				185					190					195
Asp	Arg	Ser	Gly	Ser	Ile	Ser	Tyr	Thr	Glu	Leu	Gln	Gln	Ala	Leu
				200					205					210
Ser	Gln	Met	Gly	Tyr	Asn	Leu	Ser	Pro	Gln	Phe	Thr	Gln	Leu	Leu
				215					220					225
Val	Ser	Arg	Tyr	Cys	Pro	Arg	Ser	Ala	Asn	Pro	Ala	Met	Gln	Leu
				230					235					240
Asp	Arg	Phe	Ile	Gln	Val	Cys	Thr	Gln	Leu	Gln	Val	Leu	Thr	Glu
				245					250					255
Ala	Phe	Arg	Glu	Lys	Asp	Thr	Ala	Val	Gln	Gly	Asn	Ile	Arg	Leu
				260					265					270
Ser	Phe	Glu	Asp	Phe	Val	Thr	Met	Thr	Ala	Ser	Arg	Met	Leu	
				275					280					

<210> 63  
 <211> 1234  
 <212> DNA  
 <213> Homo Sapien

<400> 63  
 caggatgcag ggccgcgtgg cagggagctg cgctcctctg ggccctgctcc 50  
  
 tgggtctgtct tcatctccca ggcctctttg cccggagcat cgggtgttgtg 100  
 gaggagaaag tttcccaaaa cttcgggacc aacttgcttc agctcggaca 150  
  
 accttctctc actggcccct ctaactctga acatccgcag cccgctcttg 200  
  
 accctaggtc taatgacttg gcaaggggtc ctctgaagct cagcgtgcct 250  
  
 ccatcagatg gcttcccacc tgcaggaggt tctgcagtgc agaggtggcc 300  
  
 tccatcgtgg gggctgcctg ccatggattc ctggccccct gaggatcctt 350  
  
 ggcagatgat ggctgctgcg gctgaggacc gcctggggga agcgctgcct 400  
  
 gaagaactct cttacctctc cagtgtgctg gccctcgctc cgggcagtgg 450  
  
 ccctttgcct ggggagtctt ctcccgatgc cacaggcctc tcacctgagg 500  
  
 cttcactcct ccaccaggac tcggagtcca gacgactgcc ccgttctaata 550  
  
 tcaactgggag ccgggggaaa aatcctttcc caacgccctc cctgggtctct 600  
  
 catccacagg gttctgcctg atcaccctg gggtagcctg aatccagtg 650  
  
 tgtcctgggg aggtggaggc cctgggactg gttggggaac gaggcccatg 700

ccacaccctg aggggaatctg ggggtatcaat aatcaacccc caggtaccag 750  
 ctgggggaaat attaatcgggt atccaggagg cagctgggga aatattaatc 800  
 ggtatccagg aggcagctgg ggggaatatta atcgggtatcc aggaggcagc 850  
 tgggggaata ttcattctata cccagggtatc aataacccat ttcctcctgg 900  
 agttctccgc cctcctgggt cttcttggaa catcccagct ggcttcccta 950  
 atcctccaag ccctagggtg cagtgggggt agagcacgat agagggaaac 1000  
 ccaacattgg gagttagagt cctgctcccg ccccttgctg tgtggggtca 1050  
 atccaggccc tgttaacatg tttccagcac tatccccact tttcagtgcc 1100  
 tcccctgctc atctccaata aaataaaagc acttatgaaa aaaaaaaaaa 1150  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1234

<210> 64  
 <211> 325  
 <212> PRT  
 <213> Homo Sapien

<400> 64  
 Met Gln Gly Arg Val Ala Gly Ser Cys Ala Pro Leu Gly Leu Leu  
 1 5 10 15  
 Leu Val Cys Leu His Leu Pro Gly Leu Phe Ala Arg Ser Ile Gly  
 20 25 30  
 Val Val Glu Glu Lys Val Ser Gln Asn Phe Gly Thr Asn Leu Pro  
 35 40 45  
 Gln Leu Gly Gln Pro Ser Ser Thr Gly Pro Ser Asn Ser Glu His  
 50 55 60  
 Pro Gln Pro Ala Leu Asp Pro Arg Ser Asn Asp Leu Ala Arg Val  
 65 70 75  
 Pro Leu Lys Leu Ser Val Pro Pro Ser Asp Gly Phe Pro Pro Ala  
 80 85 90  
 Gly Gly Ser Ala Val Gln Arg Trp Pro Pro Ser Trp Gly Leu Pro  
 95 100 105  
 Ala Met Asp Ser Trp Pro Pro Glu Asp Pro Trp Gln Met Met Ala  
 110 115 120  
 Ala Ala Ala Glu Asp Arg Leu Gly Glu Ala Leu Pro Glu Glu Leu  
 125 130 135  
 Ser Tyr Leu Ser Ser Ala Ala Ala Leu Ala Pro Gly Ser Gly Pro  
 140 145 150

Leu	Pro	Gly	Glu	Ser	Ser	Pro	Asp	Ala	Thr	Gly	Leu	Ser	Pro	Glu	155	160	165
Ala	Ser	Leu	Leu	His	Gln	Asp	Ser	Glu	Ser	Arg	Arg	Leu	Pro	Arg	170	175	180
Ser	Asn	Ser	Leu	Gly	Ala	Gly	Gly	Lys	Ile	Leu	Ser	Gln	Arg	Pro	185	190	195
Pro	Trp	Ser	Leu	Ile	His	Arg	Val	Leu	Pro	Asp	His	Pro	Trp	Gly	200	205	210
Thr	Leu	Asn	Pro	Ser	Val	Ser	Trp	Gly	Gly	Gly	Gly	Pro	Gly	Thr	215	220	225
Gly	Trp	Gly	Thr	Arg	Pro	Met	Pro	His	Pro	Glu	Gly	Ile	Trp	Gly	230	235	240
Ile	Asn	Asn	Gln	Pro	Pro	Gly	Thr	Ser	Trp	Gly	Asn	Ile	Asn	Arg	245	250	255
Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	260	265	270
Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	275	280	285
Ile	His	Leu	Tyr	Pro	Gly	Ile	Asn	Asn	Pro	Phe	Pro	Pro	Gly	Val	290	295	300
Leu	Arg	Pro	Pro	Gly	Ser	Ser	Trp	Asn	Ile	Pro	Ala	Gly	Phe	Pro	305	310	315
Asn	Pro	Pro	Ser	Pro	Arg	Leu	Gln	Trp	Gly						320	325	

<210> 65  
 <211> 422  
 <212> DNA  
 <213> Homo Sapien

<400> 65  
 aaggagagggc caccgggact tcagtgtctc ctccatccca ggagcgcagt 50  
 ggccactatg ggggtctgggc tgccccttgt cctcctcttg accctccttg 100  
 gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150  
 gagtcttttc tgacaaattc ctctatgag tccagcttcc tggaattgct 200  
 tgaaaagctc tgccctctcc tccatctccc ttcagggacc agcgtcaccc 250  
 tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300  
 ttgaagcctg tgtccttctt ggcccgggct tttgggcccgg ggatgcagga 350  
 ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400

ataaataaaa ttcggtatgc tg 422

<210> 66  
<211> 78  
<212> PRT  
<213> Homo Sapien

<400> 66  
Met Gly Ser Gly Leu Pro Leu Val Leu Leu Leu Thr Leu Leu Gly  
1 5 10 15  
Ser Ser His Gly Thr Gly Pro Gly Met Thr Leu Gln Leu Lys Leu  
20 25 30  
Lys Glu Ser Phe Leu Thr Asn Ser Ser Tyr Glu Ser Ser Phe Leu  
35 40 45  
Glu Leu Leu Glu Lys Leu Cys Leu Leu Leu His Leu Pro Ser Gly  
50 55 60  
Thr Ser Val Thr Leu His His Ala Arg Ser Gln His His Val Val  
65 70 75

Cys Asn Thr

<210> 67  
<211> 744  
<212> DNA  
<213> Homo Sapien

<400> 67  
acggaccgag ggttcgaggg agggacacgg accaggaacc tgagctaggt 50  
caaagacgcc cgggccaggt gccccgtcgc aggtgcccct ggccggagat 100  
gcggtaggag gggcgagcgc gagaagcccc ttcctcggcg ctgccaaccc 150  
gccaccacgc ccatggcgaa ccccgggctg gggctgcttc tggcgctggg 200  
cctgccgttc ctgctggccc gctggggccg agcctggggg caaatacaga 250  
ccacttctgc aaatgagaat agcactgttt tgcttcatc caccagctcc 300  
agctccgatg gcaacctgcg tccggaagcc atcactgcta tcatcgtggt 350  
cttctccctc ttggctgcct tgctcctggc tgtggggctg gactgttg 400  
tgcggaagct tcgggagaag cggcagacgg agggcaccta ccggccagt 450  
agcgaggagc agttctccca tgcagccgag gcccgggccc ctcaggactc 500  
caaggagacg gtgcagggct gctgccccat ctaggtcccc tctcctgcat 550  
ctgtctccct tcattgctgt gtgacctgg ggaaaggcag tgccctctct 600  
gggcagtcag atccaccag tgcttaatag cagggaagaa ggtacttcaa 650

agactctgcc cctgagggtca agagaggatg gggctattca cttttatata 700

tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 68  
<211> 123  
<212> PRT  
<213> Homo Sapien

<400> 68  
Met Ala Asn Pro Gly Leu Gly Leu Leu Leu Ala Leu Gly Leu Pro  
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Phe Leu Leu Ala Arg Trp Gly Arg Ala Trp Gly Gln Ile Gln Thr  
20 25 30  
Thr Ser Ala Asn Glu Asn Ser Thr Val Leu Pro Ser Ser Thr Ser  
35 40 45  
Ser Ser Ser Asp Gly Asn Leu Arg Pro Glu Ala Ile Thr Ala Ile  
50 55 60  
Ile Val Val Phe Ser Leu Leu Ala Ala Leu Leu Leu Ala Val Gly  
65 70 75  
Leu Ala Leu Leu Val Arg Lys Leu Arg Glu Lys Arg Gln Thr Glu  
80 85 90  
Gly Thr Tyr Arg Pro Ser Ser Glu Glu Gln Phe Ser His Ala Ala  
95 100 105  
Glu Ala Arg Ala Pro Gln Asp Ser Lys Glu Thr Val Gln Gly Cys  
110 115 120  
Leu Pro Ile

<210> 69  
<211> 3265  
<212> DNA  
<213> Homo Sapien

<400> 69  
gccaggaata actagagagg aacaatgggg ttattcagag gttttgtttt 50  
cctcttagtt ctgtgcctgc tgcaccagtc aaatacttcc ttcattaagc 100  
tgaataataa tggcctttgaa gatattgtca ttgttataga tcctagtgtg 150  
ccagaagatg aaaaaataat tgaacaaata gaggatatgg tgactacagc 200  
ttctacgtac ctgtttgaag ccacagaaaa aagatttttt ttcaaaaatg 250  
tatctatatt aattcctgag aattggaagg aaaatcctca gtacaaaagg 300  
ccaaaacatg aaaaccataa acatgctgat gttatagttg caccacctac 350



actcccaggt agagatgaac catacaccaa gcagttcaca gaatgtggag 400  
 agaaaggcga atacattcac ttcacccctg accttctact tggaaaaaaa 450  
 caaatgaat atggaccacc aggcaaactg tttgtccatg agtggggtca 500  
 cctccggtgg ggagtgtttg atgagtacaa tgaagatcag cctttctacc 550  
 gtgctaagtc aaaaaaatc gaagcaacaa ggtgttccgc aggtatctct 600  
 ggtagaaata gagtttataa gtgtcaagga ggcagctgtc ttagtagagc 650  
 atgcagaatt gattctacaa caaaactgta tggaaaagat tgtcaattct 700  
 ttcctgataa agtacaaaca gaaaaagcat ccataatgtt tatgcaaagt 750  
 attgattctg ttgttgaatt ttgtaacgaa aaaaccata atcaagaagc 800  
 tccaagccta caaaacataa agtgcaattt tagaagtaca tgggaggtga 850  
 ttagcaattc tgaggatttt aaaaacacca taccatggt gacaccacct 900  
 cctccacctg tcttctcatt gctgaagatc agtcaaagaa ttgtgtgctt 950  
 agttcttgat aagtctggaa gcatgggggg taaggaccgc ctaaatcgaa 1000  
 tgaatcaagc agcaaaacat ttcctgctgc agactgttga aaatggatcc 1050  
 tgggtgggga tggttcactt tgatagtact gccactattg taaataagct 1100  
 aatccaaata aaaagcagtg atgaaagaaa cacactcatg gcaggattac 1150  
 ctacatatcc tctgggagga acttccatct gctctggaat taaatatgca 1200  
 tttcaggtga ttggagagct acattcccaa ctcgatggat ccgaagtact 1250  
 gctgctgact gatggggagg ataacactgc aagttcttgt attgatgaag 1300  
 tgaaacaaag tggggccatt gttcatttta ttgctttggg aagagctgct 1350  
 gatgaagcag taatagagat gagcaagata acaggaggaa gtcattttta 1400  
 tgtttcagat gaagctcaga acaatggcct cattgatgct tttggggctc 1450  
 ttacatcagg aaatactgat ctctcccaga agtcccttca gctcgaaagt 1500  
 aagggattaa cactgaatag taatgcctgg atgaacgaca ctgtcataat 1550  
 tgatagtaca gtgggaaagg acacgttctt tctcatcaca tggaaacagtc 1600  
 tgcctcccag tatttctctc tgggatccca gtggaacaat aatggaaaat 1650  
 ttcacagtgg atgcaacttc caaatggcc tatctcagta ttccaggaac 1700  
 tgcaaagggtg ggcacttggg catacaatct tcaagccaaa gcgaaccag 1750  
 aacattaac tattacagta acttctcgag cagcaaattc ttctgtgcct 1800

ccaatcacag tgaatgctaa aatgaataag gacgtaaaca gtttccccag 1850  
 cccaatgatt gtttacgcag aaattctaca aggatatgta cctgttcttg 1900  
 gagccaatgt gactgctttc attgaatcac agaattggaca tacagaagtt 1950  
 ttggaacttt tggataatgg tgcaggcgct gattctttca agaattgatg 2000  
 agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050  
 taaaagttcg ggctcatgga ggagcaaaca ctgccaggct aaaattacgg 2100  
 cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150  
 aattgaagca aacccgccaa gacctgaaat tgatgaggat actcagacca 2200  
 ccttgaggga tttcagccga acagcatccg gaggtgcatt tgtggtatca 2250  
 caagtcccaa gccttccctt gcctgaccaa taccaccaa gtcaaatcac 2300  
 agaccttgat gccacagttc atgaggataa gattattctt acatggacag 2350  
 caccaggaga taattttgat gttggaaaag ttcaacgtta tatcataaga 2400  
 ataagtgcaa gtattcttga tctaagagac agttttgatg atgctcttca 2450  
 agtaaatact actgatctgt caccaaagga ggccaactcc aaggaaagct 2500  
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 attgccatta aaagtataga taaaagcaat ttgacatcaa aagtatccaa 2600  
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 gatatttcaa attgcatcaa gaaattaaaa tcattctatct gagtagtcaa 3150  
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<210> 70  
<211> 919  
<212> PRT  
<213> Homo Sapien

<400> 70  
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20 25 30  
Phe Glu Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp  
35 40 45  
Glu Lys Ile Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser  
50 55 60  
Thr Tyr Leu Phe Glu Ala Thr Glu Lys Arg Phe Phe Phe Lys Asn  
65 70 75  
Val Ser Ile Leu Ile Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr  
80 85 90  
Lys Arg Pro Lys His Glu Asn His Lys His Ala Asp Val Ile Val  
95 100 105  
Ala Pro Pro Thr Leu Pro Gly Arg Asp Glu Pro Tyr Thr Lys Gln  
110 115 120  
Phe Thr Glu Cys Gly Glu Lys Gly Glu Tyr Ile His Phe Thr Pro  
125 130 135  
Asp Leu Leu Leu Gly Lys Lys Gln Asn Glu Tyr Gly Pro Pro Gly  
140 145 150  
Lys Leu Phe Val His Glu Trp Ala His Leu Arg Trp Gly Val Phe  
155 160 165  
Asp Glu Tyr Asn Glu Asp Gln Pro Phe Tyr Arg Ala Lys Ser Lys  
170 175 180  
Lys Ile Glu Ala Thr Arg Cys Ser Ala Gly Ile Ser Gly Arg Asn  
185 190 195  
Arg Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg Ala Cys  
200 205 210  
Arg Ile Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln Phe  
215 220 225  
Phe Pro Asp Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met  
230 235 240

Gln Ser Ile Asp	Ser Val Val	Glu Phe Cys Asn Glu Lys Thr His
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Asn Gln Glu Ala	Pro Ser Leu	Gln Asn Ile Lys Cys Asn Phe Arg
260		265 270
Ser Thr Trp Glu	Val Ile Ser	Asn Ser Glu Asp Phe Lys Asn Thr
275		280 285
Ile Pro Met Val	Thr Pro Pro	Pro Pro Pro Val Phe Ser Leu Leu
290		295 300
Lys Ile Ser Gln	Arg Ile Val	Cys Leu Val Leu Asp Lys Ser Gly
305		310 315
Ser Met Gly Gly	Lys Asp Arg	Leu Asn Arg Met Asn Gln Ala Ala
320		325 330
Lys His Phe Leu	Leu Gln Thr	Val Glu Asn Gly Ser Trp Val Gly
335		340 345
Met Val His Phe	Asp Ser Thr	Ala Thr Ile Val Asn Lys Leu Ile
350		355 360
Gln Ile Lys Ser	Ser Asp Glu	Arg Asn Thr Leu Met Ala Gly Leu
365		370 375
Pro Thr Tyr Pro	Leu Gly Gly	Thr Ser Ile Cys Ser Gly Ile Lys
380		385 390
Tyr Ala Phe Gln	Val Ile Gly	Glu Leu His Ser Gln Leu Asp Gly
395		400 405
Ser Glu Val Leu	Leu Leu Thr	Asp Gly Glu Asp Asn Thr Ala Ser
410		415 420
Ser Cys Ile Asp	Glu Val Lys	Gln Ser Gly Ala Ile Val His Phe
425		430 435
Ile Ala Leu Gly	Arg Ala Ala	Asp Glu Ala Val Ile Glu Met Ser
440		445 450
Lys Ile Thr Gly	Gly Ser His	Phe Tyr Val Ser Asp Glu Ala Gln
455		460 465
Asn Asn Gly Leu	Ile Asp Ala	Phe Gly Ala Leu Thr Ser Gly Asn
470		475 480
Thr Asp Leu Ser	Gln Lys Ser	Leu Gln Leu Glu Ser Lys Gly Leu
485		490 495
Thr Leu Asn Ser	Asn Ala Trp	Met Asn Asp Thr Val Ile Ile Asp
500		505 510
Ser Thr Val Gly	Lys Asp Thr	Phe Phe Leu Ile Thr Trp Asn Ser
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Leu	Pro	Pro	Ser	Ile	Ser	Leu	Trp	Asp	Pro	Ser	Gly	Thr	Ile	Met	530	535	540
Glu	Asn	Phe	Thr	Val	Asp	Ala	Thr	Ser	Lys	Met	Ala	Tyr	Leu	Ser	545	550	555
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Ala	Lys	Ala	Asn	Pro	Glu	Thr	Leu	Thr	Ile	Thr	Val	Thr	Ser	Arg	575	580	585
Ala	Ala	Asn	Ser	Ser	Val	Pro	Pro	Ile	Thr	Val	Asn	Ala	Lys	Met	590	595	600
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Glu	Ile	Leu	Gln	Gly	Tyr	Val	Pro	Val	Leu	Gly	Ala	Asn	Val	Thr	620	625	630
Ala	Phe	Ile	Glu	Ser	Gln	Asn	Gly	His	Thr	Glu	Val	Leu	Glu	Leu	635	640	645
Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	Ser	Phe	Lys	Asn	Asp	Gly	Val	650	655	660
Tyr	Ser	Arg	Tyr	Phe	Thr	Ala	Tyr	Thr	Glu	Asn	Gly	Arg	Tyr	Ser	665	670	675
Leu	Lys	Val	Arg	Ala	His	Gly	Gly	Ala	Asn	Thr	Ala	Arg	Leu	Lys	680	685	690
Leu	Arg	Pro	Pro	Leu	Asn	Arg	Ala	Ala	Tyr	Ile	Pro	Gly	Trp	Val	695	700	705
Val	Asn	Gly	Glu	Ile	Glu	Ala	Asn	Pro	Pro	Arg	Pro	Glu	Ile	Asp	710	715	720
Glu	Asp	Thr	Gln	Thr	Thr	Leu	Glu	Asp	Phe	Ser	Arg	Thr	Ala	Ser	725	730	735
Gly	Gly	Ala	Phe	Val	Val	Ser	Gln	Val	Pro	Ser	Leu	Pro	Leu	Pro	740	745	750
Asp	Gln	Tyr	Pro	Pro	Ser	Gln	Ile	Thr	Asp	Leu	Asp	Ala	Thr	Val	755	760	765
His	Glu	Asp	Lys	Ile	Ile	Leu	Thr	Trp	Thr	Ala	Pro	Gly	Asp	Asn	770	775	780
Phe	Asp	Val	Gly	Lys	Val	Gln	Arg	Tyr	Ile	Ile	Arg	Ile	Ser	Ala	785	790	795
Ser	Ile	Leu	Asp	Leu	Arg	Asp	Ser	Phe	Asp	Asp	Ala	Leu	Gln	Val	800	805	810

Asn	Thr	Thr	Asp	Leu	Ser	Pro	Lys	Glu	Ala	Asn	Ser	Lys	Glu	Ser
				815					820					825
Phe	Ala	Phe	Lys	Pro	Glu	Asn	Ile	Ser	Glu	Glu	Asn	Ala	Thr	His
				830					835					840
Ile	Phe	Ile	Ala	Ile	Lys	Ser	Ile	Asp	Lys	Ser	Asn	Leu	Thr	Ser
				845					850					855
Lys	Val	Ser	Asn	Ile	Ala	Gln	Val	Thr	Leu	Phe	Ile	Pro	Gln	Ala
				860					865					870
Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro
				875					880					885
Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser	Thr	Leu
				890					895					900
Val	Leu	Ser	Val	Ile	Gly	Ser	Val	Val	Ile	Val	Asn	Phe	Ile	Leu
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Ser Thr Thr Ile

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 <211> 3877  
 <212> DNA  
 <213> Homo Sapien

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 <212> PRT  
 <213> Homo Sapien

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 35 40 45  
 Pro Arg Ala Asn Ser Pro Thr Gly Lys Glu Gly Tyr Gln Ala Val  
 50 55 60  
 Leu Gln Glu Trp Glu Glu Gln His Arg Asn Tyr Val Ser Ser Leu  
 65 70 75  
 Lys Arg Gln Ile Ala Gln Leu Lys Glu Glu Leu Gln Glu Arg Ser  
 80 85 90  
 Glu Gln Leu Arg Asn Gly Gln Tyr Gln Ala Ser Asp Ala Ala Gly  
 95 100 105  
 Leu Gly Leu Asp Arg Ser Pro Pro Glu Lys Thr Gln Ala Asp Leu  
 110 115 120  
 Leu Ala Phe Leu His Ser Gln Val Asp Lys Ala Glu Val Asn Ala  
 125 130 135  
 Gly Val Lys Leu Ala Thr Glu Tyr Ala Ala Val Pro Phe Asp Ser  
 140 145 150  
 Phe Thr Leu Gln Lys Val Tyr Gln Leu Glu Thr Gly Leu Thr Arg  
 155 160 165  
 His Pro Glu Glu Lys Pro Val Arg Lys Asp Lys Arg Asp Glu Leu  
 170 175 180  
 Val Glu Ala Ile Glu Ser Ala Leu Glu Thr Leu Asn Asn Pro Ala

185								190				195			
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				200					205				210		
Glu	Gly	Ile	Tyr	Arg	Thr	Glu	Arg	Asp	Lys	Gly	Thr	Leu	Tyr	Glu	
				215					220					225	
Leu	Thr	Phe	Lys	Gly	Asp	His	Lys	His	Glu	Phe	Lys	Arg	Leu	Ile	
				230					235					240	
Leu	Phe	Arg	Pro	Phe	Ser	Pro	Ile	Met	Lys	Val	Lys	Asn	Glu	Lys	
				245					250					255	
Leu	Asn	Met	Ala	Asn	Thr	Leu	Ile	Asn	Val	Ile	Val	Pro	Leu	Ala	
				260					265					270	
Lys	Arg	Val	Asp	Lys	Phe	Arg	Gln	Phe	Met	Gln	Asn	Phe	Arg	Glu	
				275					280					285	
Met	Cys	Ile	Glu	Gln	Asp	Gly	Arg	Val	His	Leu	Thr	Val	Val	Tyr	
				290					295					300	
Phe	Gly	Lys	Glu	Glu	Ile	Asn	Glu	Val	Lys	Gly	Ile	Leu	Glu	Asn	
				305					310					315	
Thr	Ser	Lys	Ala	Ala	Asn	Phe	Arg	Asn	Phe	Thr	Phe	Ile	Gln	Leu	
				320					325					330	
Asn	Gly	Glu	Phe	Ser	Arg	Gly	Lys	Gly	Leu	Asp	Val	Gly	Ala	Arg	
				335					340					345	
Phe	Trp	Lys	Gly	Ser	Asn	Val	Leu	Leu	Phe	Phe	Cys	Asp	Val	Asp	
				350					355					360	
Ile	Tyr	Phe	Thr	Ser	Glu	Phe	Leu	Asn	Thr	Cys	Arg	Leu	Asn	Thr	
				365					370					375	
Gln	Pro	Gly	Lys	Lys	Val	Phe	Tyr	Pro	Val	Leu	Phe	Ser	Gln	Tyr	
				380					385					390	
Asn	Pro	Gly	Ile	Ile	Tyr	Gly	His	His	Asp	Ala	Val	Pro	Pro	Leu	
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Glu	Gln	Gln	Leu	Val	Ile	Lys	Lys	Glu	Thr	Gly	Phe	Trp	Arg	Asp	
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Phe	Gly	Phe	Gly	Met	Thr	Cys	Gln	Tyr	Arg	Ser	Asp	Phe	Ile	Asn	
				425					430					435	
Ile	Gly	Gly	Phe	Asp	Leu	Asp	Ile	Lys	Gly	Trp	Gly	Gly	Glu	Asp	
				440					445					450	
Val	His	Leu	Tyr	Arg	Lys	Tyr	Leu	His	Ser	Asn	Leu	Ile	Val	Val	
				455					460					465	
Arg	Thr	Pro	Val	Arg	Gly	Leu	Phe	His	Leu	Trp	His	Glu	Lys	Arg	

470	475	480
Cys Met Asp Glu Leu Thr Pro	Glu Gln Tyr Lys Met Cys Met	Gln
485	490	495
Ser Lys Ala Met Asn Glu Ala	Ser His Gly Gln Leu Gly Met	Leu
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Val Phe Arg His Glu Ile Glu	Ala His Leu Arg Lys Gln Lys	Gln
515	520	525
Lys Thr Ser Ser Lys Lys Thr		
530		

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 <212> DNA  
 <213> Homo Sapien  
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 <221> unsure  
 <222> 1528  
 <223> unknown base

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<210> 74

<211> 337

<212> PRT

<213> Homo Sapien

<400> 74

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				20				25					30	

Asp	His	Trp	Pro	Ala	Ser	Tyr	Pro	Glu	Cys	Gly	Asn	Asn	Ala	Gln
				35				40					45	

Ser	Pro	Ile	Asp	Ile	Gln	Thr	Asp	Ser	Val	Thr	Phe	Asp	Pro	Asp
				50				55					60	

Leu	Pro	Ala	Leu	Gln	Pro	His	Gly	Tyr	Asp	Gln	Pro	Gly	Thr	Glu
				65				70					75	

Pro	Leu	Asp	Leu	His	Asn	Asn	Gly	His	Thr	Val	Gln	Leu	Ser	Leu	80	85	90
Pro	Ser	Thr	Leu	Tyr	Leu	Gly	Gly	Leu	Pro	Arg	Lys	Tyr	Val	Ala	95	100	105
Ala	Gln	Leu	His	Leu	His	Trp	Gly	Gln	Lys	Gly	Ser	Pro	Gly	Gly	110	115	120
Ser	Glu	His	Gln	Ile	Asn	Ser	Glu	Ala	Thr	Phe	Ala	Glu	Leu	His	125	130	135
Ile	Val	His	Tyr	Asp	Ser	Asp	Ser	Tyr	Asp	Ser	Leu	Ser	Glu	Ala	140	145	150
Ala	Glu	Arg	Pro	Gln	Gly	Leu	Ala	Val	Leu	Gly	Ile	Leu	Ile	Glu	155	160	165
Val	Gly	Glu	Thr	Lys	Asn	Ile	Ala	Tyr	Glu	His	Ile	Leu	Ser	His	170	175	180
Leu	His	Glu	Val	Arg	His	Lys	Asp	Gln	Lys	Thr	Ser	Val	Pro	Pro	185	190	195
Phe	Asn	Leu	Arg	Glu	Leu	Leu	Pro	Lys	Gln	Leu	Gly	Gln	Tyr	Phe	200	205	210
Arg	Tyr	Asn	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Tyr	Gln	Ser	Val	215	220	225
Leu	Trp	Thr	Val	Phe	Tyr	Arg	Arg	Ser	Gln	Ile	Ser	Met	Glu	Gln	230	235	240
Leu	Glu	Lys	Leu	Gln	Gly	Thr	Leu	Phe	Ser	Thr	Glu	Glu	Glu	Pro	245	250	255
Ser	Lys	Leu	Leu	Val	Gln	Asn	Tyr	Arg	Ala	Leu	Gln	Pro	Leu	Asn	260	265	270
Gln	Arg	Met	Val	Phe	Ala	Ser	Phe	Ile	Gln	Ala	Gly	Ser	Ser	Tyr	275	280	285
Thr	Thr	Gly	Glu	Met	Leu	Ser	Leu	Gly	Val	Gly	Ile	Leu	Val	Gly	290	295	300
Cys	Leu	Cys	Leu	Leu	Leu	Ala	Val	Tyr	Phe	Ile	Ala	Arg	Lys	Ile	305	310	315
Arg	Lys	Lys	Arg	Leu	Glu	Asn	Arg	Lys	Ser	Val	Val	Phe	Thr	Ser	320	325	330
Ala	Gln	Ala	Thr	Thr	Glu	Ala									335		

<210> 75  
 <211> 1743  
 <212> DNA

<213> Homo Sapien

<400> 75

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gcagttccct gtgtctctgg tggtttgctt aaacctgcaa acatcacctt 100
cttatccatc aacatgaaga atgtcctaca atggactcca ccagaggggtc 150
ttcaaggagt taaagttact tacactgtgc agtatttcat cacaaattgg 200
cccaccagag gtggcactga ctacagatga gaagtccatt tctgttgtcc 250
tgacagctcc agagaagtgg aagagaaatc cagaagacct tcctgtttcc 300
atgcaacaaa tatactccaa tctgaagtat aacgtgtctg tgttgaatac 350
taaatcaaac agaacgtggg cccagtgtgt gaccaaccac acgctggtgc 400
tcacctgggt ggagccgaac actctttact gcgtacacgt ggagtccttc 450
gtcccagggc cccctcgccg tgcctcagcct tctgagaagc agtgtgccag 500
gactttgaaa gatcaatcat cagagttcaa ggctaaaatc atcttctggt 550
atgttttgcc catatctatt accgtgtttc ttttttctgt gatgggctat 600
tccatctacc gatatatcca cgttggcaaa gagaaacacc cagcaaattt 650
gattttgatt tatggaaatg aatttgacaa aagattcttt gtgcctgctg 700
aaaaaatcgt gattaacttt atcacctca atatctcgga tgattctaaa 750
atttctcatc aggatatgag tttactggga aaaagcagtg atgtatccag 800
ccttaatgat cctcagccca gcgggaacct gaggccccct caggaggaag 850
aggaggtgaa acatttaggg tatgcttcgc atttgatgga aattttttgt 900
gactctgaag aaaacacgga aggtacttct ctcaccagc aagagtcctt 950
cagcagaaca atacccccgg ataaaacagt cattgaatat gaatatgatg 1000
tcagaaccac tgacatttgt gcggggcctg aagagcagga gctcagtttg 1050
caggaggagg tgtccacaca aggaacatta ttggagtcgc aggcagcgtt 1100
ggcagtcttg ggcccgcaaa cgttacagta ctcatacacc cctcagctcc 1150
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gaggaagagc catcgacgac cctggtcgac tgggatcccc aaactggcag 1250
gctgtgtatt ccttcgctgt ccagcttcga ccaggattca gagggctgcg 1300
agccttctga gggggatggg ctcggagagg agggcttctt atctagactc 1350
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gccaacactt ccttttgcct tttgtttcct gtgcaaacia gtgagtcacc 1500  
cctttgatcc cagccataaa gtacctggga tgaaagaagt tttttccagt 1550  
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cgtgtgtgat tggttcatgc atgtaggctt cttaacaatg atggtggggc 1650  
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aaatgtttgc cagactgggt gcagaattta ttcaggtggg tgt 1743

<210> 76  
<211> 442  
<212> PRT  
<213> Homo Sapien

<400> 76  
Met Ser Tyr Asn Gly Leu His Gln Arg Val Phe Lys Glu Leu Lys  
1 5 10 15  
Leu Leu Thr Leu Cys Ser Ile Ser Ser Gln Ile Gly Pro Pro Glu  
20 25 30  
Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr  
35 40 45  
Ala Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser  
50 55 60  
Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu  
65 70 75  
Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His  
80 85 90  
Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val  
95 100 105  
His Val Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala Gln Pro  
110 115 120  
Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys Asp Gln Ser Ser Glu  
125 130 135  
Phe Lys Ala Lys Ile Ile Phe Trp Tyr Val Leu Pro Ile Ser Ile  
140 145 150  
Thr Val Phe Leu Phe Ser Val Met Gly Tyr Ser Ile Tyr Arg Tyr  
155 160 165  
Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu Ile Leu Ile  
170 175 180

Tyr Gly Asn Glu	Phe Asp Lys Arg Phe	Phe Val Pro Ala Glu	Lys
	185	190	195
Ile Val Ile Asn	Phe Ile Thr Leu Asn	Ile Ser Asp Asp Ser	Lys
	200	205	210
Ile Ser His Gln	Asp Met Ser Leu Leu	Gly Lys Ser Ser Asp	Val
	215	220	225
Ser Ser Leu Asn	Asp Pro Gln Pro Ser	Gly Asn Leu Arg Pro	Pro
	230	235	240
Gln Glu Glu Glu	Glu Val Lys His Leu	Gly Tyr Ala Ser His	Leu
	245	250	255
Met Glu Ile Phe	Cys Asp Ser Glu Glu	Asn Thr Glu Gly Thr	Ser
	260	265	270
Leu Thr Gln Gln	Glu Ser Leu Ser Arg	Thr Ile Pro Pro Asp	Lys
	275	280	285
Thr Val Ile Glu	Tyr Glu Tyr Asp Val	Arg Thr Thr Asp Ile	Cys
	290	295	300
Ala Gly Pro Glu	Glu Gln Glu Leu Ser	Leu Gln Glu Glu Val	Ser
	305	310	315
Thr Gln Gly Thr	Leu Leu Glu Ser Gln	Ala Ala Leu Ala Val	Leu
	320	325	330
Gly Pro Gln Thr	Leu Gln Tyr Ser Tyr	Thr Pro Gln Leu Gln	Asp
	335	340	345
Leu Asp Pro Leu	Ala Gln Glu His Thr	Asp Ser Glu Glu Gly	Pro
	350	355	360
Glu Glu Glu Pro	Ser Thr Thr Leu Val	Asp Trp Asp Pro Gln	Thr
	365	370	375
Gly Arg Leu Cys	Ile Pro Ser Leu Ser	Ser Phe Asp Gln Asp	Ser
	380	385	390
Glu Gly Cys Glu	Pro Ser Glu Gly Asp	Gly Leu Gly Glu Glu	Gly
	395	400	405
Leu Leu Ser Arg	Leu Tyr Glu Glu Pro	Ala Pro Asp Arg Pro	Pro
	410	415	420
Gly Glu Asn Glu	Thr Tyr Leu Met Gln	Phe Met Glu Glu Trp	Gly
	425	430	435
Leu Tyr Val Gln	Met Glu Asn		
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<210> 77  
 <211> 1636  
 <212> DNA



<213> Homo Sapien

<400> 77

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ctctgtggtt tgctggcagc caccttgatc caagccaccc tcagtccac 150
tgcagttctc atcctcggcc caaaagtcac caaagaaaag ctgacacagg 200
agctgaagga ccacaacgcc accagcatcc tgcagcagct gccgctgctc 250
agtgccatgc gggaaaagcc agccggaggc atccctgtgc tgggcagcct 300
ggtgaacacc gtctgaagc acatcatctg gctgaaggtc atcacagcta 350
acatcctcca gctgcagggtg aagccctcgg ccaatgacca ggagctgcta 400
gtcaagatcc ccttgacat ggtggctgga ttcaacacgc ccctgggtcaa 450
gaccatcgtg gagttccaca tgacgactga ggcccaagcc accatccgca 500
tggacaccag tgcaagtggc cccacccgcc tggctctcag tgactgtgcc 550
accagccatg ggagcctgcg catccaactg ctgtataagc tctccttcct 600
ggtgaacgcc ttagctaagc aggtcatgaa cctcctagtg ccatccctgc 650
ccaatctagt gaaaaaccag ctgtgtcccg tgatcgaggc ttccttcaat 700
ggcatgtatg cagacctcct gcagctgggtg aaggtgccca tttccctcag 750
cattgaccgt ctggagtttg accttctgta tcttgccatc aagggtgaca 800
ccattcagct ctacctgggg gccaaattgt tggactcaca gggaaagggtg 850
accaagtggg tcaataactc tgcagcttcc ctgacaatgc ccaccctgga 900
caacatcccc ttcagcctca tcgtgagtca ggacgtgggtg aaagctgcag 950
tggctgctgt gctctctcca gaagaattca tggctcctgtt ggactctgtg 1000
cttctgaga gtgcccatcg gctgaagtca agcatcgggc tgatcaatga 1050
aaaggctgca gataagctgg gatctaccca gatcgtgaag atcctaactc 1100
aggacactcc cgagtttttt atagaccaag gccatgcaa ggtggcccaa 1150
ctgatcgtgc tggaaagtgt tccctccagt gaagccctcc gccctttgtt 1200
caccctgggc atcgaagcca gctcggaagc tcagttttac accaaagggtg 1250
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atgaactctg ggattggctg gttccaacct gatgttctga aaaacatcat 1350
cactgagatc atccactcca tctgtctgcc gaaccagaat ggcaaattaa 1400
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gatctgggggt cccagtgtca ttggtgaagg ccttggggatt cgaggcagct 1450  
gagtcctcac tgaccaagga tgcccttgtg cttactccag cctccttgtg 1500  
gaaaccacgc tctcctgtct cccagtgaag acttggatgg cagccatcag 1550  
ggaaggctgg gtcccagctg ggagtatggg tgtgagctct atagaccatc 1600  
cctctctgca atcaataaac acttgctgtg gaaaaa 1636

<210> 78  
<211> 484  
<212> PRT  
<213> Homo Sapien

<400> 78  
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1 5 10 15  
Ala Thr Leu Ile Gln Ala Thr Leu Ser Pro Thr Ala Val Leu Ile  
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Leu Gly Pro Lys Val Ile Lys Glu Lys Leu Thr Gln Glu Leu Lys  
35 40 45  
Asp His Asn Ala Thr Ser Ile Leu Gln Gln Leu Pro Leu Leu Ser  
50 55 60  
Ala Met Arg Glu Lys Pro Ala Gly Gly Ile Pro Val Leu Gly Ser  
65 70 75  
Leu Val Asn Thr Val Leu Lys His Ile Ile Trp Leu Lys Val Ile  
80 85 90  
Thr Ala Asn Ile Leu Gln Leu Gln Val Lys Pro Ser Ala Asn Asp  
95 100 105  
Gln Glu Leu Leu Val Lys Ile Pro Leu Asp Met Val Ala Gly Phe  
110 115 120  
Asn Thr Pro Leu Val Lys Thr Ile Val Glu Phe His Met Thr Thr  
125 130 135  
Glu Ala Gln Ala Thr Ile Arg Met Asp Thr Ser Ala Ser Gly Pro  
140 145 150  
Thr Arg Leu Val Leu Ser Asp Cys Ala Thr Ser His Gly Ser Leu  
155 160 165  
Arg Ile Gln Leu Leu Tyr Lys Leu Ser Phe Leu Val Asn Ala Leu  
170 175 180  
Ala Lys Gln Val Met Asn Leu Leu Val Pro Ser Leu Pro Asn Leu  
185 190 195  
Val Lys Asn Gln Leu Cys Pro Val Ile Glu Ala Ser Phe Asn Gly

	200		205		210
Met Tyr Ala Asp	Leu Leu Gln	Leu Val	Lys Val	Pro Ile Ser	Leu
	215		220		225
Ser Ile Asp Arg	Leu Glu Phe	Asp Leu	Leu Tyr	Pro Ala Ile	Lys
	230		235		240
Gly Asp Thr Ile	Gln Leu Tyr	Leu Gly	Ala Lys	Leu Leu Asp	Ser
	245		250		255
Gln Gly Lys Val	Thr Lys Trp	Phe Asn	Asn Ser	Ala Ala Ser	Leu
	260		265		270
Thr Met Pro Thr	Leu Asp Asn	Ile Pro	Phe Ser	Leu Ile Val	Ser
	275		280		285
Gln Asp Val Val	Lys Ala Ala	Val Ala	Ala Val	Leu Ser Pro	Glu
	290		295		300
Glu Phe Met Val	Leu Leu Asp	Ser Val	Leu Pro	Glu Ser Ala	His
	305		310		315
Arg Leu Lys Ser	Ser Ile Gly	Leu Ile	Asn Glu	Lys Ala Ala	Asp
	320		325		330
Lys Leu Gly Ser	Thr Gln Ile	Val Lys	Ile Leu	Thr Gln Asp	Thr
	335		340		345
Pro Glu Phe Phe	Ile Asp Gln	Gly His	Ala Lys	Val Ala Gln	Leu
	350		355		360
Ile Val Leu Glu	Val Phe Pro	Ser Ser	Glu Ala	Leu Arg Pro	Leu
	365		370		375
Phe Thr Leu Gly	Ile Glu Ala	Ser Ser	Glu Ala	Gln Phe Tyr	Thr
	380		385		390
Lys Gly Asp Gln	Leu Ile Leu	Asn Leu	Asn Asn	Ile Ser Ser	Asp
	395		400		405
Arg Ile Gln Leu	Met Asn Ser	Gly Ile	Gly Trp	Phe Gln Pro	Asp
	410		415		420
Val Leu Lys Asn	Ile Ile Thr	Glu Ile	Ile His	Ser Ile Leu	Leu
	425		430		435
Pro Asn Gln Asn	Gly Lys Leu	Arg Ser	Gly Val	Pro Val Ser	Leu
	440		445		450
Val Lys Ala Leu	Gly Phe Glu	Ala Ala	Glu Ser	Ser Leu Thr	Lys
	455		460		465
Asp Ala Leu Val	Leu Thr Pro	Ala Ser	Leu Trp	Lys Pro Ser	Ser
	470		475		480
Pro Val Ser Gln					

<210> 79  
<211> 1475  
<212> DNA  
<213> Homo Sapien

<400> 79  
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gcttctactg agaggtctgc catggcctct cttggcctcc aacttgtggg 150  
ctacatccta ggccttctgg ggcttttgagg cacactgggt gccatgctgc 200  
tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250  
gttggcttct ccaagggcct ctggatggaa tgtgccacac acagcacagg 300  
catcaccagc tgtgacatct atagcaccct tctgggcctg cccgctgaca 350  
tccaggctgc ccaggccatg atggtgacat ccagtgcaat ctccctcctg 400  
gcctgcatta tctctgtggg gggcatgaga tgcacagtct tctgccagga 450  
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ttggaggcct cctgggattc attcctgttg cctggaatct tcatgggatc 550  
ctacgggact tctactcacc actggtgcct gacagcatga aatttgagat 600  
tgagagaggc ctttacttgg gcattatttc ttccctgttc tccctgatag 650  
ctggaatcat cctctgcttt tctgtctcat cccagagaaa tcgctccaac 700  
tactacgatg cctaccaagc ccaacctctt gccacaagga gctctccaag 750  
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cagggtatgt gtgaagaacc aggggcccaga gctggggggg ggctgggtct 850  
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gctccccctgc cctaagtccc caaccctcaa cttgaaaccc cattccctta 1100  
agccaggact cagaggatcc ctttgccttc tggtttacct gggactccat 1150  
ccccaaaccc actaatcaca tcccactgac tgaccctctg tgatcaaaga 1200  
ccctctctct ggctgagggt ggctcttagc tcattgctgg ggatgggaag 1250

gagaagcagt ggcttttgtg ggcattgctc taacctactt ctcaagcttc 1300  
 cctccaaaga aactgattgg ccctggaacc tccatccac tcttggtatg 1350  
 actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400  
 tacggtatcc aggaacaga aagcaggatg caggatggga ggacaggaag 1450  
 gcagcctggg acatttaaaa aaata 1475

<210> 80  
 <211> 230  
 <212> PRT  
 <213> Homo Sapien

<400> 80  
 Met Ala Ser Leu Gly Leu Gln Leu Val Gly Tyr Ile Leu Gly Leu  
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 Leu Gly Leu Leu Gly Thr Leu Val Ala Met Leu Leu Pro Ser Trp  
                     20                    25                    30  
 Lys Thr Ser Ser Tyr Val Gly Ala Ser Ile Val Thr Ala Val Gly  
                     35                    40                    45  
 Phe Ser Lys Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly  
                     50                    55                    60  
 Ile Thr Gln Cys Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala  
                     65                    70                    75  
 Asp Ile Gln Ala Ala Gln Ala Met Met Val Thr Ser Ser Ala Ile  
                     80                    85                    90  
 Ser Ser Leu Ala Cys Ile Ile Ser Val Val Gly Met Arg Cys Thr  
                     95                    100                    105  
 Val Phe Cys Gln Glu Ser Arg Ala Lys Asp Arg Val Ala Val Ala  
                     110                    115                    120  
 Gly Gly Val Phe Phe Ile Leu Gly Gly Leu Leu Gly Phe Ile Pro  
                     125                    130                    135  
 Val Ala Trp Asn Leu His Gly Ile Leu Arg Asp Phe Tyr Ser Pro  
                     140                    145                    150  
 Leu Val Pro Asp Ser Met Lys Phe Glu Ile Gly Glu Ala Leu Tyr  
                     155                    160                    165  
 Leu Gly Ile Ile Ser Ser Leu Phe Ser Leu Ile Ala Gly Ile Ile  
                     170                    175                    180  
 Leu Cys Phe Ser Cys Ser Ser Gln Arg Asn Arg Ser Asn Tyr Tyr  
                     185                    190                    195  
 Asp Ala Tyr Gln Ala Gln Pro Leu Ala Thr Arg Ser Ser Pro Arg  
                     200                    205                    210

Pro Gly Gln Pro Pro Lys Val Lys Ser Glu Phe Asn Ser Tyr Ser  
 215 220 225

Leu Thr Gly Tyr Val  
 230

<210> 81  
 <211> 1732  
 <212> DNA  
 <213> Homo Sapien

<400> 81  
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 cttagacctc ccttctgccc ctcttttctt gccaccgct gcttcttggc 150  
 ccttctccga ccccgctcta gcagcagacc tcctggggtc tgtgggttga 200  
 tctgtggccc ctgtgcctcc gtgtcctttt cgtctccctt cctcccgact 250  
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 agatactccc ccggcgagag ctggcacccc tacttggagc cacaaggcct 450  
 gatgtactgc ctgcgctgta cctgctcaga gggcgcccat gtgagttgtt 500  
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 ggccccacca aagtcttgcc agcacaacgg gaccatgtac caacacggag 650  
 agatcttcag tgcccatgag ctgttcccct cccgcctgcc caaccagtgt 700  
 gtctcttgca gctgcacaga gggccagatc tactgcggcc tcacaacctg 750  
 ccccgaaaca ggctgcccag caccctctcc actgccagac tcctgctgcc 800  
 aagcctgcaa agatgaggca agtgagcaat cggatgaaga ggacagtgtg 850  
 cagtcgctcc atgggggtgag acatcctcag gatccatgtt ccagtgatgc 900  
 tgggagaaaag agaggccccg gcaccccagc cccactggc ctcagcgccc 950  
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 actgtcaaga tcgtcctgaa ggagaaacat aagaaagcct gtgtgcatgg 1050  
 cggaagacg tactccacg gggaggtgtg gcacccggcc ttccgtgcct 1100  
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 agtggctggg aagtgtgca agatttgccc agaggacaaa gcagaccctg 1250  
 gccacagtga gatcagttct accaggtgtc ccaaggcacc gggccgggtc 1300  
 ctggtccaca catcggtatc cccaagccca gacaacctgc gtcgctttgc 1350  
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 aagacttcca gaaagaggca cagcacttcc gactgctcgc tggccccac 1550  
 gaaggtcact ggaacgtctt cctagcccag accctggagc tgaaggtcac 1600  
 ggccagtcca gacaaagtga ccaagacata acaaagacct aacagttgca 1650  
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 cattaccctc aaaaaaaaaa aaaaaaaaaa aa 1732

<210> 82  
 <211> 451  
 <212> PRT  
 <213> Homo Sapien

<400> 82  
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 Leu Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp  
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 Met Phe Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser  
 35 40 45  
 Trp His Pro Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg  
 50 55 60  
 Cys Thr Cys Ser Glu Gly Ala His Val Ser Cys Tyr Arg Leu His  
 65 70 75  
 Cys Pro Pro Val His Cys Pro Gln Pro Val Thr Glu Pro Gln Gln  
 80 85 90  
 Cys Cys Pro Lys Cys Val Glu Pro His Thr Pro Ser Gly Leu Arg  
 95 100 105  
 Ala Pro Pro Lys Ser Cys Gln His Asn Gly Thr Met Tyr Gln His  
 110 115 120  
 Gly Glu Ile Phe Ser Ala His Glu Leu Phe Pro Ser Arg Leu Pro  
 125 130 135

Asn Gln Cys Val	Leu Cys Ser	Cys Thr	Glu Gly Gln Ile Tyr	Cys
	140		145	150
Gly Leu Thr Thr	Cys Pro Glu	Pro Gly	Cys Pro Ala Pro Leu	Pro
	155		160	165
Leu Pro Asp Ser	Cys Cys Gln	Ala Cys	Lys Asp Glu Ala Ser	Glu
	170		175	180
Gln Ser Asp Glu	Glu Asp Ser	Val Gln	Ser Leu His Gly Val	Arg
	185		190	195
His Pro Gln Asp	Pro Cys Ser	Ser Asp	Ala Gly Arg Lys Arg	Gly
	200		205	210
Pro Gly Thr Pro	Ala Pro Thr	Gly Leu	Ser Ala Pro Leu Ser	Phe
	215		220	225
Ile Pro Arg His	Phe Arg Pro	Lys Gly	Ala Gly Ser Thr Thr	Val
	230		235	240
Lys Ile Val Leu	Lys Glu Lys	His Lys	Lys Ala Cys Val His	Gly
	245		250	255
Gly Lys Thr Tyr	Ser His Gly	Glu Val	Trp His Pro Ala Phe	Arg
	260		265	270
Ala Phe Gly Pro	Leu Pro Cys	Ile Leu	Cys Thr Cys Glu Asp	Gly
	275		280	285
Arg Gln Asp Cys	Gln Arg Val	Thr Cys	Pro Thr Glu Tyr Pro	Cys
	290		295	300
Arg His Pro Glu	Lys Val Ala	Gly Lys	Cys Cys Lys Ile Cys	Pro
	305		310	315
Glu Asp Lys Ala	Asp Pro Gly	His Ser	Glu Ile Ser Ser Thr	Arg
	320		325	330
Cys Pro Lys Ala	Pro Gly Arg	Val Leu	Val His Thr Ser Val	Ser
	335		340	345
Pro Ser Pro Asp	Asn Leu Arg	Arg Phe	Ala Leu Glu His Glu	Ala
	350		355	360
Ser Asp Leu Val	Glu Ile Tyr	Leu Trp	Lys Leu Val Lys Asp	Glu
	365		370	375
Glu Thr Glu Ala	Gln Arg Gly	Glu Val	Pro Gly Pro Arg Pro	His
	380		385	390
Ser Gln Asn Leu	Pro Leu Asp	Ser Asp	Gln Glu Ser Gln Glu	Ala
	395		400	405
Arg Leu Pro Glu	Arg Gly Thr	Ala Leu	Pro Thr Ala Arg Trp	Pro
	410		415	420



Pro Arg Arg Ser Leu Glu Arg Leu Pro Ser Pro Asp Pro Gly Ala  
 425 430 435

Glu Gly His Gly Gln Ser Arg Gln Ser Asp Gln Asp Ile Thr Lys  
 440 445 450

Thr

<210> 83

<211> 2052

<212> DNA

<213> Homo Sapien

<400> 83

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 gttctctctt tctctctaata ccatccgtca cctctcctgt catccgtttc 150  
 catgccgtga ggtccattca cagaacacat ccatggctct catgctcagt 200  
 ttggttctga gtctcctcaa gctgggatca gggcagtggc aggtgtttgg 250  
 gccagacaag cctgtccagg ccttgggtggg ggaggacgca gcattctcct 300  
 gtttctgtgc tcctaagacc aatgcagagg ccatggaagt gcggttcttc 350  
 agggggccagt tctctagcgt ggtccacctc tacagggacg ggaaggacca 400  
 gccatttatg cagatgccac agtatcaagg caggacaaaa ctggtgaagg 450  
 attctattgc ggaggggcgc atctctctga ggctggaaaa cattactgtg 500  
 ttggatgctg gcctctatgg gtgcaggatt agttcccagt cttactacca 550  
 gaaggccatc tgggagctac aggtgtcagc actgggctca gttcctctca 600  
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 tccatgcggc atgctcatct gagccgagag gtggaatcca ggttacagat 850  
 aggagatacc tttttcgagc ctatatcgtg gcacctggct accaaagtac 900  
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tgactctgga tccagagacg gctcaccgga agctctgcgt ttctgatctg 1100  
 aaaactgtaa cccatagaaa agctccccag gaggtgcctc actctgagaa 1150  
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 gtgtgccggg atgatgtgga caggaggaag gagtacgtga ctttgtctcc 1300  
 cgatcatggg tactgggtcc tcagactgaa tggagaacat ttgtatttca 1350  
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aa 2052

<210> 84

<211> 500

<212> PRT

<213> Homo Sapien

<400> 84

Met	Ala	Leu	Met	Leu	Ser	Leu	Val	Leu	Ser	Leu	Leu	Lys	Leu	Gly
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Ser	Gly	Gln	Trp	Gln	Val	Phe	Gly	Pro	Asp	Lys	Pro	Val	Gln	Ala
				20					25					30

Leu	Val	Gly	Glu	Asp	Ala	Ala	Phe	Ser	Cys	Phe	Leu	Ser	Pro	Lys
				35					40					45

Thr	Asn	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Gly	Gln	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50							55				60			
Ser	Ser	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Lys	Asp	Gln	Pro	Phe
				65					70					75
Met	Gln	Met	Pro	Gln	Tyr	Gln	Gly	Arg	Thr	Lys	Leu	Val	Lys	Asp
				80					85					90
Ser	Ile	Ala	Glu	Gly	Arg	Ile	Ser	Leu	Arg	Leu	Glu	Asn	Ile	Thr
				95					100					105
Val	Leu	Asp	Ala	Gly	Leu	Tyr	Gly	Cys	Arg	Ile	Ser	Ser	Gln	Ser
				110					115					120
Tyr	Tyr	Gln	Lys	Ala	Ile	Trp	Glu	Leu	Gln	Val	Ser	Ala	Leu	Gly
				125					130					135
Ser	Val	Pro	Leu	Ile	Ser	Ile	Thr	Gly	Tyr	Val	Asp	Arg	Asp	Ile
				140					145					150
Gln	Leu	Leu	Cys	Gln	Ser	Ser	Gly	Trp	Phe	Pro	Arg	Pro	Thr	Ala
				155					160					165
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Thr	Asp	Ser	Arg
				170					175					180
Thr	Asn	Arg	Asp	Met	His	Gly	Leu	Phe	Asp	Val	Glu	Ile	Ser	Leu
				185					190					195
Thr	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Ser	Cys	Ser	Met	Arg	His
				200					205					210
Ala	His	Leu	Ser	Arg	Glu	Val	Glu	Ser	Arg	Val	Gln	Ile	Gly	Asp
				215					220					225
Thr	Phe	Phe	Glu	Pro	Ile	Ser	Trp	His	Leu	Ala	Thr	Lys	Val	Leu
				230					235					240
Gly	Ile	Leu	Cys	Cys	Gly	Leu	Phe	Phe	Gly	Ile	Val	Gly	Leu	Lys
				245					250					255
Ile	Phe	Phe	Ser	Lys	Phe	Gln	Trp	Lys	Ile	Gln	Ala	Glu	Leu	Asp
				260					265					270
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys
				275					280					285
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys
				290					295					300
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro
				305					310					315
Gln	Glu	Val	Pro	His	Ser	Glu	Lys	Arg	Phe	Thr	Arg	Lys	Ser	Val
				320					325					330
Val	Ala	Ser	Gln	Ser	Phe	Gln	Ala	Gly	Lys	His	Tyr	Trp	Glu	Val

335	340	345
Asp Gly Gly His Asn Lys Arg Trp Arg Val Gly Val Cys Arg Asp		
350	355	360
Asp Val Asp Arg Arg Lys Glu Tyr Val Thr Leu Ser Pro Asp His		
365	370	375
Gly Tyr Trp Val Leu Arg Leu Asn Gly Glu His Leu Tyr Phe Thr		
380	385	390
Leu Asn Pro Arg Phe Ile Ser Val Phe Pro Arg Thr Pro Pro Thr		
395	400	405
Lys Ile Gly Val Phe Leu Asp Tyr Glu Cys Gly Thr Ile Ser Phe		
410	415	420
Phe Asn Ile Asn Asp Gln Ser Leu Ile Tyr Thr Leu Thr Cys Arg		
425	430	435
Phe Glu Gly Leu Leu Arg Pro Tyr Ile Glu Tyr Pro Ser Tyr Asn		
440	445	450
Glu Gln Asn Gly Thr Pro Ile Val Ile Cys Pro Val Thr Gln Glu		
455	460	465
Ser Glu Lys Glu Ala Ser Trp Gln Arg Ala Ser Ala Ile Pro Glu		
470	475	480
Thr Ser Asn Ser Glu Ser Ser Ser Gln Ala Thr Thr Pro Phe Leu		
485	490	495
Pro Arg Gly Glu Met		
500		

<210> 85  
 <211> 1665  
 <212> DNA  
 <213> Homo Sapien

<400> 85  
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 gctgctgctg cccctgctct gggggaggga gagggcggaa ggacagacaa 100  
 gtaaactgct gacgatgcag agttccgtga cggtgcagga aggcctgtgt 150  
 gtccatgtgc cctgctcctt ctccctacccc tcgcatggct ggatttaccc 200  
 tggcccagta gttcatggct actggttccg ggaagggggc aatacagacc 250  
 aggatgctcc agtggccaca aacaacccag ctcgggcagt gtgggaggag 300  
 actcgggacc gattccacct ccttggggac ccacatacca agaattgcac 350  
 cctgagcatc agagatgccca gaagaagtga tgcggggaga tacttctttc 400

gtatggagaa aggaagtata aaatggaatt ataaacatca ccggctctct 450  
 gtgaatgtga cagccttgac ccacaggccc aacatcctca tcccaggcac 500  
 cctggagtcc ggctgcccc agaatctgac ctgctctgtg ccctgggcct 550  
 gtgagcaggg gacaccccct atgatctcct ggataggagc ctccgtgtcc 600  
 cccctggacc cctccaccac ccgctcctcg gtgctcacc tcatcccaca 650  
 gcccaggac catggcacca gcctcacctg tcagggtgacc ttccctgggg 700  
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 cagaacttga ccatgactgt cttccaagga gacggcacag tatccacagt 800  
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 cctgactgaa ccttgggcag aagacagtcc ccagaccag cctccccccag 1300  
 cttctgcccg ctctcagtg ggggaaggag agctccagta tgcattccctc 1350  
 agcttccaga tggatgaagc ttgggactcg cggggacagg aggcactga 1400  
 caccgagtac tcggagatca agatccacag atgagaaact gcagagactc 1450  
 accctgattg agggatcaca gccctccag gcaagggaga agtcagaggc 1500  
 tgattcttgt agaattaaca gccctcaacg tgatgagcta tgataacact 1550  
 atgaattatg tgcagagtga aaagcacaca ggctttagag tcaaagtatc 1600  
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 acagacaaat tccta 1665

<210> 86  
 <211> 463  
 <212> PRT  
 <213> Homo Sapien

<400> 86

Met	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Trp	Gly	Arg	Glu	Arg	Ala	1	5	10	15
Glu	Gly	Gln	Thr	Ser	Lys	Leu	Leu	Thr	Met	Gln	Ser	Ser	Val	Thr	20	25	30	
Val	Gln	Glu	Gly	Leu	Cys	Val	His	Val	Pro	Cys	Ser	Phe	Ser	Tyr	35	40	45	
Pro	Ser	His	Gly	Trp	Ile	Tyr	Pro	Gly	Pro	Val	Val	His	Gly	Tyr	50	55	60	
Trp	Phe	Arg	Glu	Gly	Ala	Asn	Thr	Asp	Gln	Asp	Ala	Pro	Val	Ala	65	70	75	
Thr	Asn	Asn	Pro	Ala	Arg	Ala	Val	Trp	Glu	Glu	Thr	Arg	Asp	Arg	80	85	90	
Phe	His	Leu	Leu	Gly	Asp	Pro	His	Thr	Lys	Asn	Cys	Thr	Leu	Ser	95	100	105	
Ile	Arg	Asp	Ala	Arg	Arg	Ser	Asp	Ala	Gly	Arg	Tyr	Phe	Phe	Arg	110	115	120	
Met	Glu	Lys	Gly	Ser	Ile	Lys	Trp	Asn	Tyr	Lys	His	His	Arg	Leu	125	130	135	
Ser	Val	Asn	Val	Thr	Ala	Leu	Thr	His	Arg	Pro	Asn	Ile	Leu	Ile	140	145	150	
Pro	Gly	Thr	Leu	Glu	Ser	Gly	Cys	Pro	Gln	Asn	Leu	Thr	Cys	Ser	155	160	165	
Val	Pro	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro	Pro	Met	Ile	Ser	Trp	170	175	180	
Ile	Gly	Thr	Ser	Val	Ser	Pro	Leu	Asp	Pro	Ser	Thr	Thr	Arg	Ser	185	190	195	
Ser	Val	Leu	Thr	Leu	Ile	Pro	Gln	Pro	Gln	Asp	His	Gly	Thr	Ser	200	205	210	
Leu	Thr	Cys	Gln	Val	Thr	Phe	Pro	Gly	Ala	Ser	Val	Thr	Thr	Asn	215	220	225	
Lys	Thr	Val	His	Leu	Asn	Val	Ser	Tyr	Pro	Pro	Gln	Asn	Leu	Thr	230	235	240	
Met	Thr	Val	Phe	Gln	Gly	Asp	Gly	Thr	Val	Ser	Thr	Val	Leu	Gly	245	250	255	
Asn	Gly	Ser	Ser	Leu	Ser	Leu	Pro	Glu	Gly	Gln	Ser	Leu	Arg	Leu	260	265	270	
Val	Cys	Ala	Val	Asp	Ala	Val	Asp	Ser	Asn	Pro	Pro	Ala	Arg	Leu	275	280	285	

Ser	Leu	Ser	Trp	Arg	Gly	Leu	Thr	Leu	Cys	Pro	Ser	Gln	Pro	Ser		290	295	300
Asn	Pro	Gly	Val	Leu	Glu	Leu	Pro	Trp	Val	His	Leu	Arg	Asp	Ala		305	310	315
Ala	Glu	Phe	Thr	Cys	Arg	Ala	Gln	Asn	Pro	Leu	Gly	Ser	Gln	Gln		320	325	330
Val	Tyr	Leu	Asn	Val	Ser	Leu	Gln	Ser	Lys	Ala	Thr	Ser	Gly	Val		335	340	345
Thr	Gln	Gly	Val	Val	Gly	Gly	Ala	Gly	Ala	Thr	Ala	Leu	Val	Phe		350	355	360
Leu	Ser	Phe	Cys	Val	Ile	Phe	Val	Val	Val	Arg	Ser	Cys	Arg	Lys		365	370	375
Lys	Ser	Ala	Arg	Pro	Ala	Ala	Gly	Val	Gly	Asp	Thr	Gly	Ile	Glu		380	385	390
Asp	Ala	Asn	Ala	Val	Arg	Gly	Ser	Ala	Ser	Gln	Gly	Pro	Leu	Thr		395	400	405
Glu	Pro	Trp	Ala	Glu	Asp	Ser	Pro	Pro	Asp	Gln	Pro	Pro	Pro	Ala		410	415	420
Ser	Ala	Arg	Ser	Ser	Val	Gly	Glu	Gly	Glu	Leu	Gln	Tyr	Ala	Ser		425	430	435
Leu	Ser	Phe	Gln	Met	Val	Lys	Pro	Trp	Asp	Ser	Arg	Gly	Gln	Glu		440	445	450
Ala	Thr	Asp	Thr	Glu	Tyr	Ser	Glu	Ile	Lys	Ile	His	Arg				455	460	

<210> 87  
 <211> 1176  
 <212> DNA  
 <213> Homo Sapien

<400> 87  
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 aggagctctc tgtacccaag gaaagtgcag ctgagactca gacaagatta 100  
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 tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200  
 gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250  
 gtgcatttga tggcctgtat tttctccgca ctgagaatgg tgttatctac 300  
 cagaccttct gtgacatgac ctctgggggt ggcggttgga ccctgggtggc 350  
 cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400

ggtccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450  
 tgggccaaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500  
 ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550  
 ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600  
 ctgaggtacc gcacggacac tggcttcctc cagacactgg gacataatct 650  
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 ggactgacaa cggccccgtg atccctgtgg tctatgattt tggcgacgcc 750  
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 gggatttgtt cagttcaggg tatttaataa cgagagagca gccaacgcct 850  
 tgtgtgctgg aatgaggggc accggatgta aactgagca tcaactgcatt 900  
 ggtggaggag gatactttcc agaggccagt cccagcagt gtggagattt 950  
 ttctggtttt gattggagtg gatatggaac tcatgttggt tacagcagca 1000  
 gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050  
 tgtgggaggg aaccagacc tctcctccca accatgagat cccaaggatg 1100  
 gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150  
 taaatcatat tgactcaaga aaaaaa 1176

<210> 88  
 <211> 313  
 <212> PRT  
 <213> Homo Sapien

<400> 88  
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 Gly Trp Ser Thr Asp Glu Ala Asn Thr Tyr Phe Lys Glu Trp Thr  
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 Cys Ser Ser Ser Pro Ser Leu Pro Arg Ser Cys Lys Glu Ile Lys  
 35 40 45  
 Asp Glu Cys Pro Ser Ala Phe Asp Gly Leu Tyr Phe Leu Arg Thr  
 50 55 60  
 Glu Asn Gly Val Ile Tyr Gln Thr Phe Cys Asp Met Thr Ser Gly  
 65 70 75  
 Gly Gly Gly Trp Thr Leu Val Ala Ser Val His Glu Asn Asp Met  
 80 85 90



Arg Gly Lys Cys Thr Val Gly	Asp Arg Trp Ser Ser Gln Gln Gly	95	100	105
Ser Lys Ala Asp Tyr Pro Glu	Gly Asp Gly Asn Trp Ala Asn Tyr	110	115	120
Asn Thr Phe Gly Ser Ala Glu	Ala Ala Thr Ser Asp Asp Tyr Lys	125	130	135
Asn Pro Gly Tyr Tyr Asp Ile	Gln Ala Lys Asp Leu Gly Ile Trp	140	145	150
His Val Pro Asn Lys Ser Pro	Met Gln His Trp Arg Asn Ser Ser	155	160	165
Leu Leu Arg Tyr Arg Thr Asp	Thr Gly Phe Leu Gln Thr Leu Gly	170	175	180
His Asn Leu Phe Gly Ile Tyr	Gln Lys Tyr Pro Val Lys Tyr Gly	185	190	195
Glu Gly Lys Cys Trp Thr Asp	Asn Gly Pro Val Ile Pro Val Val	200	205	210
Tyr Asp Phe Gly Asp Ala Gln	Lys Thr Ala Ser Tyr Tyr Ser Pro	215	220	225
Tyr Gly Gln Arg Glu Phe Thr	Ala Gly Phe Val Gln Phe Arg Val	230	235	240
Phe Asn Asn Glu Arg Ala Ala	Asn Ala Leu Cys Ala Gly Met Arg	245	250	255
Val Thr Gly Cys Asn Thr Glu	His His Cys Ile Gly Gly Gly Gly	260	265	270
Tyr Phe Pro Glu Ala Ser Pro	Gln Gln Cys Gly Asp Phe Ser Gly	275	280	285
Phe Asp Trp Ser Gly Tyr Gly	Thr His Val Gly Tyr Ser Ser Ser	290	295	300
Arg Glu Ile Thr Glu Ala Ala	Val Leu Leu Phe Tyr Arg	305	310	

<210> 89

<211> 759

<212> DNA

<213> Homo Sapien

<400> 89

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tcagggcttg tgccctctcg ctctctgacg ctctggcgc atctggtggt 150

cgtcatcacc ttattctggt cccgggacag caacatacag gcctgcctgc 200  
 ctctcacgtt ccccccgag gagtatgaca agcaggacat tcagctggtg 250  
 gccgcgtct ctgtaccct gggcctcttt gcagtggagc tggccggttt 300  
 cctctcagga gtctccatgt tcaacagcac ccagagcctc atctccattg 350  
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 aacccttctg attaccttca tgacgggaac ctaaggacga agcctacagg 550  
 ggcaagggcc gcttcgtatt cctggaagaa ggaaggcata ggcttcggtt 600  
 ttcccctcgg aaactgcttc tgctggagga tatgtgttgg aataattacg 650  
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 tgttttgtag taacattaag acttatatac agtttttaggg gacaattaa 750  
 aaaaaaaaa 759

<210> 90  
 <211> 140  
 <212> PRT  
 <213> Homo Sapien

<400> 90  
 Met Gly Arg Val Ser Gly Leu Val Pro Ser Arg Phe Leu Thr Leu  
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 Ser Asn Ile Gln Ala Cys Leu Pro Leu Thr Phe Thr Pro Glu Glu  
 35 40 45  
 Tyr Asp Lys Gln Asp Ile Gln Leu Val Ala Ala Leu Ser Val Thr  
 50 55 60  
 Leu Gly Leu Phe Ala Val Glu Leu Ala Gly Phe Leu Ser Gly Val  
 65 70 75  
 Ser Met Phe Asn Ser Thr Gln Ser Leu Ile Ser Ile Gly Ala His  
 80 85 90  
 Cys Ser Ala Ser Val Ala Leu Ser Phe Phe Ile Phe Glu Arg Trp  
 95 100 105  
 Glu Cys Thr Thr Tyr Trp Tyr Ile Phe Val Phe Cys Ser Ala Leu  
 110 115 120  
 Pro Ala Val Thr Glu Met Ala Leu Phe Val Thr Val Phe Gly Leu

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Lys Lys Lys Pro Phe			
140			
<210> 91			
<211> 1871			
<212> DNA			
<213> Homo Sapien			
<400> 91			
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tctatctggt catctgtggc caggatgatg gtcctcccgg ctccagaggac	150		
cctgagcgtg atgaccacga gggccagccc cggccccggg tgcctcggaa	200		
gcggggccac atctcaccta agtcccggcc catggccaat tccactctcc	250		
tagggctgct ggccccgcct ggggaggctt ggggcattct tgggcagccc	300		
cccaaccgcc cgaaccacag cccccaccc tcagccaagg tgaagaaaat	350		
ctttggetgg ggcgacttct actccaacat caagacggtg gccctgaacc	400		
tgctcgtcac aggaagatt gtggaccatg gcaatgggac cttcagcgtc	450		
cacttccaac acaatgccac aggccaggga aacatctcca tcagcctcgt	500		
gccccccagt aaagctgtag agttccacca ggaacagcag atcttcatcg	550		
aagccaaggc ctccaaaatc ttcaactgcc ggatggagtg ggagaaggta	600		
gaacggggcc gccggacctc gctttgcacc cacgaccag ccaagatctg	650		
ctcccagagac cacgctcaga gctcagccac ctggagctgc tcccagccct	700		
tcaaagtcgt ctgtgtctac atcgcttct acagcacgga ctatcggctg	750		
gtccagaagg tgtgcccaga ttacaactac catagtata cccctacta	800		
cccatctggg tgaccggggg caggccacag aggccaggcc agggctggaa	850		
ggacaggcct gcccatgcag gagaccatct ggacaccggg caggaaggg	900		
gttgggcctc aggcaggag ggggtggag acgaggagat gccaagtggg	950		
gccagggcca agtctcaagt ggcagagaaa ggggtccaag tgctggtccc	1000		
aacctgaagc tgtggagtga ctagatcaca ggagcactgg aggaggagtg	1050		
ggctctctgt gcagcctcac agggctttgc cacggagcca cagagagatg	1100		
ctgggtcccc gaggcctgtg ggcaggccga tcagtgtggc cccagatcaa	1150		
gtcatgggag gaagctaagc ccttggttct tgccatcctg aggaagata	1200		

gcaacagggga gggggagatt tcatcagtgt ggacagcctg tcaacttagg 1250  
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gccagaggag ctctccagcc ctgcctagtg ggcgcctga gccccttgctc 1350  
gtgtgctgag catggcatga ggctgaagtg gcaaccctgg ggtctttgat 1400  
gtcttgacag attgaccatc tgtctccagc caggccaccc ctttccaaaa 1450  
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cccattctta agctaagaca ggacgattgt ggtcctccca cactaaggcc 1550  
acagcccatc cgcgtgctgt gtgtccctct tccaccccaa cccctgctgg 1600  
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gcagcgggca cgggtggggc ggggccgggc cgcagagcat gtgctggatc 1750  
tgttctgtgt gtctgtctgt ggggtggggg aggggagggga agtcttgtga 1800  
aaccgctgat tgctgacttt tgtgtgaaga atcgtgttct tggagcagga 1850  
aataaagctt gccccggggc a 1871

<210> 92

<211> 252

<212> PRT

<213> Homo Sapien

<400> 92

Met	Gln	Leu	Thr	Arg	Cys	Cys	Phe	Val	Phe	Leu	Val	Gln	Gly	Ser
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Leu	Tyr	Leu	Val	Ile	Cys	Gly	Gln	Asp	Asp	Gly	Pro	Pro	Gly	Ser
				20					25					30

Glu	Asp	Pro	Glu	Arg	Asp	Asp	His	Glu	Gly	Gln	Pro	Arg	Pro	Arg
				35					40					45

Val	Pro	Arg	Lys	Arg	Gly	His	Ile	Ser	Pro	Lys	Ser	Arg	Pro	Met
				50					55					60

Ala	Asn	Ser	Thr	Leu	Leu	Gly	Leu	Leu	Ala	Pro	Pro	Gly	Glu	Ala
				65					70					75

Trp	Gly	Ile	Leu	Gly	Gln	Pro	Pro	Asn	Arg	Pro	Asn	His	Ser	Pro
				80					85					90

Pro	Pro	Ser	Ala	Lys	Val	Lys	Lys	Ile	Phe	Gly	Trp	Gly	Asp	Phe
				95					100					105

Tyr	Ser	Asn	Ile	Lys	Thr	Val	Ala	Leu	Asn	Leu	Leu	Val	Thr	Gly
				110					115					120

Lys	Ile	Val	Asp	His	Gly	Asn	Gly	Thr	Phe	Ser	Val	His	Phe	Gln
					125				130					135
His	Asn	Ala	Thr	Gly	Gln	Gly	Asn	Ile	Ser	Ile	Ser	Leu	Val	Pro
				140					145					150
Pro	Ser	Lys	Ala	Val	Glu	Phe	His	Gln	Glu	Gln	Gln	Ile	Phe	Ile
				155					160					165
Glu	Ala	Lys	Ala	Ser	Lys	Ile	Phe	Asn	Cys	Arg	Met	Glu	Trp	Glu
				170					175					180
Lys	Val	Glu	Arg	Gly	Arg	Arg	Thr	Ser	Leu	Cys	Thr	His	Asp	Pro
				185					190					195
Ala	Lys	Ile	Cys	Ser	Arg	Asp	His	Ala	Gln	Ser	Ser	Ala	Thr	Trp
				200					205					210
Ser	Cys	Ser	Gln	Pro	Phe	Lys	Val	Val	Cys	Val	Tyr	Ile	Ala	Phe
				215					220					225
Tyr	Ser	Thr	Asp	Tyr	Arg	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp	Tyr
				230					235					240
Asn	Tyr	His	Ser	Asp	Thr	Pro	Tyr	Tyr	Pro	Ser	Gly			
				245					250					

<210> 93  
 <211> 902  
 <212> DNA  
 <213> Homo Sapien

<400> 93  
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 gggcctgcgc tcgcccttta tgtcttcacc atcgccatcg agccgttgcg 100  
 tatcatcttc ctcatcgccg gagctttctt ctgggttggtg tctctactga 150  
 ttctgtccct tgtttgggtc atggcaagag tcattattga caacaaagat 200  
 ggaccaacac agaaatatct gctgatcttt ggagcgtttg tctctgtcta 250  
 tatccaagaa atgttccgat ttgcatatta taaactctta aaaaaagcca 300  
 gtgaaggttt gaagagtata aaccaggtg agacagcacc ctctatgcga 350  
 ctgctggcct atgtttctgg cttgggcttt ggaatcatga gtggagtatt 400  
 ttcttttggt aataccctat ctgactcctt ggggccaggc acagtgggca 450  
 ttcatggaga ttctcctcaa ttcttccttt attcagcttt catgacgctg 500  
 gtcattatct tgctgcatgt attctggggc attgtatatt ttgatggctg 550  
 tgagaagaaa aagtggggca tcctccttat cgttctcctg acccacctgc 600

tgggtgtcagc ccagaccttc ataagttctt attatggaat aaacctggcg 650  
 tcagcattta taatcctggg gctcatgggc acctgggcat tcttagctgc 700  
 gggaggcagc tgccgaagcc tgaaactctg cctgctctgc caagacaaga 750  
 actttcttct ttacaaccag cgctccagat aacctcaggg aaccagcact 800  
 tcccaaaccg cagactacat ctttagagga agcacaactg tgcctttttc 850  
 tgaaaatccc tttttctggg ggaattgaga aagaaataaa actatgcaga 900  
 ta 902

<210> 94  
 <211> 257  
 <212> PRT  
 <213> Homo Sapien

<400> 94  
 Met Thr Ala Ala Val Phe Phe Gly Cys Ala Phe Ile Ala Phe Gly  
 1 5 10 15  
 Pro Ala Leu Ala Leu Tyr Val Phe Thr Ile Ala Ile Glu Pro Leu  
 20 25 30  
 Arg Ile Ile Phe Leu Ile Ala Gly Ala Phe Phe Trp Leu Val Ser  
 35 40 45  
 Leu Leu Ile Ser Ser Leu Val Trp Phe Met Ala Arg Val Ile Ile  
 50 55 60  
 Asp Asn Lys Asp Gly Pro Thr Gln Lys Tyr Leu Leu Ile Phe Gly  
 65 70 75  
 Ala Phe Val Ser Val Tyr Ile Gln Glu Met Phe Arg Phe Ala Tyr  
 80 85 90  
 Tyr Lys Leu Leu Lys Lys Ala Ser Glu Gly Leu Lys Ser Ile Asn  
 95 100 105  
 Pro Gly Glu Thr Ala Pro Ser Met Arg Leu Leu Ala Tyr Val Ser  
 110 115 120  
 Gly Leu Gly Phe Gly Ile Met Ser Gly Val Phe Ser Phe Val Asn  
 125 130 135  
 Thr Leu Ser Asp Ser Leu Gly Pro Gly Thr Val Gly Ile His Gly  
 140 145 150  
 Asp Ser Pro Gln Phe Phe Leu Tyr Ser Ala Phe Met Thr Leu Val  
 155 160 165  
 Ile Ile Leu Leu His Val Phe Trp Gly Ile Val Phe Phe Asp Gly  
 170 175 180

Cys	Glu	Lys	Lys	Lys	Trp	Gly	Ile	Leu	Leu	Ile	Val	Leu	Leu	Thr
				185					190					195
His	Leu	Leu	Val	Ser	Ala	Gln	Thr	Phe	Ile	Ser	Ser	Tyr	Tyr	Gly
				200					205					210
Ile	Asn	Leu	Ala	Ser	Ala	Phe	Ile	Ile	Leu	Val	Leu	Met	Gly	Thr
				215					220					225
Trp	Ala	Phe	Leu	Ala	Ala	Gly	Gly	Ser	Cys	Arg	Ser	Leu	Lys	Leu
				230					235					240
Cys	Leu	Leu	Cys	Gln	Asp	Lys	Asn	Phe	Leu	Leu	Tyr	Asn	Gln	Arg
				245					250					255

Ser Arg

<210> 95  
 <211> 1073  
 <212> DNA  
 <213> Homo Sapien

<400> 95  
 aattttttcac cagagtaaacc ttgagaaacc aactggacct tgagtattgt 50  
 acattttgcc tcgtggaccc aaaggtagca atctgaaaca tgaggagtac 100  
 gattctactg ttttgtcttc taggatcaac tcggtcatta ccacagctca 150  
 aacctgcttt gggactccct cccacaaaac tggctccgga tcagggaaca 200  
 ctaccaaacc aacagcagtc aaatcaggtc tttccttctt taagtctgat 250  
 accattaaca cagatgctca cactggggcc agatctgcat ctgttaaadc 300  
 ctgctgcagg aatgacacct ggtaccaga cccaccatt gaccctggga 350  
 ggggtgaatg tacaacagca actgcaccca catgtgttac caatttttgt 400  
 cacacaactt ggagcccagg gcactatcct aagctcagag gaattgccac 450  
 aaatcttcac gagcctcatc atccattcct tgttcccggg aggcacctg 500  
 cccaccagtc aggcaggggc taatccagat gtccaggatg gaagccttcc 550  
 agcaggagga gcagggtgaa atcctgccac ccagggaacc ccagcaggcc 600  
 gcctcccaac tcccagtggc acagatgacg actttgcagt gaccaccct 650  
 gcaggcatcc aaaggagcac acatgccatc gaggaagcca ccacagaatc 700  
 agcaaagtga attcagtaag ctgtttcaaa ttttttcaac taagctgcct 750  
 cgaatttggt gatacatgtg aatctttatc attgattata ttatggaata 800  
 gattgagaca cattggatag tcttagaaga aattaattct taatttacct 850

gaaaatattc ttgaaatttc agaaaatatg ttctatgtag agaatcccaa 900  
 ctttttaaaaa caataattca atggataaat ctgtctttga aatataacat 950  
 tatgctgcct ggatgatatg catattaaaa catatttgga aaactggaaa 1000  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1050  
 aaaaaaaaaa aaaaaaaaaa aaa 1073

<210> 96  
 <211> 209  
 <212> PRT  
 <213> Homo Sapien

<400> 96  
 Met Arg Ser Thr Ile Leu Leu Phe Cys Leu Leu Gly Ser Thr Arg  
 1 5 10 15  
 Ser Leu Pro Gln Leu Lys Pro Ala Leu Gly Leu Pro Pro Thr Lys  
 20 25 30  
 Leu Ala Pro Asp Gln Gly Thr Leu Pro Asn Gln Gln Gln Ser Asn  
 35 40 45  
 Gln Val Phe Pro Ser Leu Ser Leu Ile Pro Leu Thr Gln Met Leu  
 50 55 60  
 Thr Leu Gly Pro Asp Leu His Leu Leu Asn Pro Ala Ala Gly Met  
 65 70 75  
 Thr Pro Gly Thr Gln Thr His Pro Leu Thr Leu Gly Gly Leu Asn  
 80 85 90  
 Val Gln Gln Gln Leu His Pro His Val Leu Pro Ile Phe Val Thr  
 95 100 105  
 Gln Leu Gly Ala Gln Gly Thr Ile Leu Ser Ser Glu Glu Leu Pro  
 110 115 120  
 Gln Ile Phe Thr Ser Leu Ile Ile His Ser Leu Phe Pro Gly Gly  
 125 130 135  
 Ile Leu Pro Thr Ser Gln Ala Gly Ala Asn Pro Asp Val Gln Asp  
 140 145 150  
 Gly Ser Leu Pro Ala Gly Gly Ala Gly Val Asn Pro Ala Thr Gln  
 155 160 165  
 Gly Thr Pro Ala Gly Arg Leu Pro Thr Pro Ser Gly Thr Asp Asp  
 170 175 180  
 Asp Phe Ala Val Thr Thr Pro Ala Gly Ile Gln Arg Ser Thr His  
 185 190 195  
 Ala Ile Glu Glu Ala Thr Thr Glu Ser Ala Asn Gly Ile Gln



<210> 97  
 <211> 2848  
 <212> DNA  
 <213> Homo Sapien

<400> 97  
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 tggagaagga gctctcttct tgcttggcag ctggaccaag ggagccagtc 100  
 ttgggcgctg gagggcctgt cctgaccatg gtccctgcct ggctgtggct 150  
 gctttgtgtc tccgtccccc aggtctctcc caaggcccag cctgcagagc 200  
 tgtctgtgga agttccagaa aactatggtg gaaatttccc tttatacctg 250  
 accaagttgc cgctgccccg tgagggggct gaaggccaga tcgtgctgtc 300  
 aggggactca ggcaaggcaa ctgagggccc atttgctatg gatccagatt 350  
 ctggcttccct gctggtgacc agggccctgg accgagagga gcaggcagag 400  
 taccagctac aggtcacccct ggagatgcag gatggacatg tcttgtgggg 450  
 tccacagcct gtgcttgtgc acgtgaagga tgagaatgac caggtgcccc 500  
 atttctctca agccatctac agagctcggc tgagccgggg taccaggcct 550  
 ggcacccctc tcctcttccct tgaggcttca gaccgggatg agccaggcac 600  
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 cttccccaga catgttccag ctggagcctc ggctgggggc tctggccctc 700  
 agccccaagg ggagcaccag ccttgaccac gccctggaga ggacctacca 750  
 gctgttggtg caggtcaagg acatgggtga ccaggcctca ggccaccagg 800  
 ccactgccac cgtggaagtc tccatcatag agagcacctg ggtgtcccta 850  
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 agagagctgg acagagaagc ccaggctgag tacctgctcc aggtgcgggc 1050  
 tcagaattcc catggcgagg actatgcggc ccctctggag ctgcacgtgc 1100  
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 acagtcagca tccctgagct cagtccacca ggtactgaag tgactagact 1200  
 gtcagcagag gatgcagatg cccccggctc cccaattcc cacgttgtgt 1250

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cagggtggacc ccacttcagg cagtgtgacg ctgggggtgc tcccactccg 1350  
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tcagtgcgcc agccggctct ttctgctga ccatccagcc ctccgacccc 1900  
atcagccgaa ccctcaggtt ctccctagtc aatgactcag agggctggct 1950  
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gcgcccagcc tggggacacc tacacggtgc ttgtggaggc ccaggataca 2050  
gcctgactc ttgcccctgt gccctcccaa tacctctgca cccccgcca 2100  
agaccatggc ttgatcgtga gtggaccag caaggacccc gatctggcca 2150  
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cgggattggc gcctccagac tctcaatggt tcccatgcct acctcacctt 2250  
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gccacaatgc ccagatgtgg cagctcctgg ttcgagtgat cgtgtgtcgc 2350  
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gcccacgaag ctgtcggcag tgggcatcct tgtaggcacc ctggtagcaa 2450  
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aaggaccgg atcaaccagc agacagcgtg cccctgaagg cgactgtctg 2550  
aatggcccag gcagctctag ctgggagctt ggcctctggc tccatctgag 2600  
tcccctggga gagagcccag cacccaagat ccagcagggg acaggacaga 2650

gtagaagccc ctccatctgc cctggggtgg aggcaccatc accatcacca 2700  
 ggcattgtctg cagagcctgg acaccaactt tatggactgc ccatgggagt 2750  
 gctccaaatg tcagggtggt tgcccaataa taaagcccca gagaactggg 2800  
 ctgggccccta tgggaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaag 2848

<210> 98  
 <211> 807  
 <212> PRT  
 <213> Homo Sapien

<400> 98  
 Met Val Pro Ala Trp Leu Trp Leu Leu Cys Val Ser Val Pro Gln  
 1 5 10 15  
 Ala Leu Pro Lys Ala Gln Pro Ala Glu Leu Ser Val Glu Val Pro  
 20 25 30  
 Glu Asn Tyr Gly Gly Asn Phe Pro Leu Tyr Leu Thr Lys Leu Pro  
 35 40 45  
 Leu Pro Arg Glu Gly Ala Glu Gly Gln Ile Val Leu Ser Gly Asp  
 50 55 60  
 Ser Gly Lys Ala Thr Glu Gly Pro Phe Ala Met Asp Pro Asp Ser  
 65 70 75  
 Gly Phe Leu Leu Val Thr Arg Ala Leu Asp Arg Glu Glu Gln Ala  
 80 85 90  
 Glu Tyr Gln Leu Gln Val Thr Leu Glu Met Gln Asp Gly His Val  
 95 100 105  
 Leu Trp Gly Pro Gln Pro Val Leu Val His Val Lys Asp Glu Asn  
 110 115 120  
 Asp Gln Val Pro His Phe Ser Gln Ala Ile Tyr Arg Ala Arg Leu  
 125 130 135  
 Ser Arg Gly Thr Arg Pro Gly Ile Pro Phe Leu Phe Leu Glu Ala  
 140 145 150  
 Ser Asp Arg Asp Glu Pro Gly Thr Ala Asn Ser Asp Leu Arg Phe  
 155 160 165  
 His Ile Leu Ser Gln Ala Pro Ala Gln Pro Ser Pro Asp Met Phe  
 170 175 180  
 Gln Leu Glu Pro Arg Leu Gly Ala Leu Ala Leu Ser Pro Lys Gly  
 185 190 195  
 Ser Thr Ser Leu Asp His Ala Leu Glu Arg Thr Tyr Gln Leu Leu  
 200 205 210  
 Val Gln Val Lys Asp Met Gly Asp Gln Ala Ser Gly His Gln Ala

215							220							225						
Thr	Ala	Thr	Val	Glu	Val	Ser	Ile	Ile	Glu	Ser	Thr	Trp	Val	Ser						
				230					235					240						
Leu	Glu	Pro	Ile	His	Leu	Ala	Glu	Asn	Leu	Lys	Val	Leu	Tyr	Pro						
				245					250					255						
His	His	Met	Ala	Gln	Val	His	Trp	Ser	Gly	Gly	Asp	Val	His	Tyr						
				260					265					270						
His	Leu	Glu	Ser	His	Pro	Pro	Gly	Pro	Phe	Glu	Val	Asn	Ala	Glu						
				275					280					285						
Gly	Asn	Leu	Tyr	Val	Thr	Arg	Glu	Leu	Asp	Arg	Glu	Ala	Gln	Ala						
				290					295					300						
Glu	Tyr	Leu	Leu	Gln	Val	Arg	Ala	Gln	Asn	Ser	His	Gly	Glu	Asp						
				305					310					315						
Tyr	Ala	Ala	Pro	Leu	Glu	Leu	His	Val	Leu	Val	Met	Asp	Glu	Asn						
				320					325					330						
Asp	Asn	Val	Pro	Ile	Cys	Pro	Pro	Arg	Asp	Pro	Thr	Val	Ser	Ile						
				335					340					345						
Pro	Glu	Leu	Ser	Pro	Pro	Gly	Thr	Glu	Val	Thr	Arg	Leu	Ser	Ala						
				350					355					360						
Glu	Asp	Ala	Asp	Ala	Pro	Gly	Ser	Pro	Asn	Ser	His	Val	Val	Tyr						
				365					370					375						
Gln	Leu	Leu	Ser	Pro	Glu	Pro	Glu	Asp	Gly	Val	Glu	Gly	Arg	Ala						
				380					385					390						
Phe	Gln	Val	Asp	Pro	Thr	Ser	Gly	Ser	Val	Thr	Leu	Gly	Val	Leu						
				395					400					405						
Pro	Leu	Arg	Ala	Gly	Gln	Asn	Ile	Leu	Leu	Leu	Val	Leu	Ala	Met						
				410					415					420						
Asp	Leu	Ala	Gly	Ala	Glu	Gly	Gly	Phe	Ser	Ser	Thr	Cys	Glu	Val						
				425					430					435						
Glu	Val	Ala	Val	Thr	Asp	Ile	Asn	Asp	His	Ala	Pro	Glu	Phe	Ile						
				440					445					450						
Thr	Ser	Gln	Ile	Gly	Pro	Ile	Ser	Leu	Pro	Glu	Asp	Val	Glu	Pro						
				455					460					465						
Gly	Thr	Leu	Val	Ala	Met	Leu	Thr	Ala	Ile	Asp	Ala	Asp	Leu	Glu						
				470					475					480						
Pro	Ala	Phe	Arg	Leu	Met	Asp	Phe	Ala	Ile	Glu	Arg	Gly	Asp	Thr						
				485					490					495						
Glu	Gly	Thr	Phe	Gly	Leu	Asp	Trp	Glu	Pro	Asp	Ser	Gly	His	Val						

				500					505					510	
Arg	Leu	Arg	Leu	Cys	Lys	Asn	Leu	Ser	Tyr	Glu	Ala	Ala	Pro	Ser	
				515					520					525	
His	Glu	Val	Val	Val	Val	Val	Gln	Ser	Val	Ala	Lys	Leu	Val	Gly	
				530					535					540	
Pro	Gly	Pro	Gly	Pro	Gly	Ala	Thr	Ala	Thr	Val	Thr	Val	Leu	Val	
				545					550					555	
Glu	Arg	Val	Met	Pro	Pro	Pro	Lys	Leu	Asp	Gln	Glu	Ser	Tyr	Glu	
				560					565					570	
Ala	Ser	Val	Pro	Ile	Ser	Ala	Pro	Ala	Gly	Ser	Phe	Leu	Leu	Thr	
				575					580					585	
Ile	Gln	Pro	Ser	Asp	Pro	Ile	Ser	Arg	Thr	Leu	Arg	Phe	Ser	Leu	
				590					595					600	
Val	Asn	Asp	Ser	Glu	Gly	Trp	Leu	Cys	Ile	Glu	Lys	Phe	Ser	Gly	
				605					610					615	
Glu	Val	His	Thr	Ala	Gln	Ser	Leu	Gln	Gly	Ala	Gln	Pro	Gly	Asp	
				620					625					630	
Thr	Tyr	Thr	Val	Leu	Val	Glu	Ala	Gln	Asp	Thr	Ala	Leu	Thr	Leu	
				635					640					645	
Ala	Pro	Val	Pro	Ser	Gln	Tyr	Leu	Cys	Thr	Pro	Arg	Gln	Asp	His	
				650					655					660	
Gly	Leu	Ile	Val	Ser	Gly	Pro	Ser	Lys	Asp	Pro	Asp	Leu	Ala	Ser	
				665					670					675	
Gly	His	Gly	Pro	Tyr	Ser	Phe	Thr	Leu	Gly	Pro	Asn	Pro	Thr	Val	
				680					685					690	
Gln	Arg	Asp	Trp	Arg	Leu	Gln	Thr	Leu	Asn	Gly	Ser	His	Ala	Tyr	
				695					700					705	
Leu	Thr	Leu	Ala	Leu	His	Trp	Val	Glu	Pro	Arg	Glu	His	Ile	Ile	
				710					715					720	
Pro	Val	Val	Val	Ser	His	Asn	Ala	Gln	Met	Trp	Gln	Leu	Leu	Val	
				725					730					735	
Arg	Val	Ile	Val	Cys	Arg	Cys	Asn	Val	Glu	Gly	Gln	Cys	Met	Arg	
				740					745					750	
Lys	Val	Gly	Arg	Met	Lys	Gly	Met	Pro	Thr	Lys	Leu	Ser	Ala	Val	
				755					760					765	
Gly	Ile	Leu	Val	Gly	Thr	Leu	Val	Ala	Ile	Gly	Ile	Phe	Leu	Ile	
				770					775					780	
Leu	Ile	Phe	Thr	His	Trp	Thr	Met	Ser	Arg	Lys	Lys	Asp	Pro	Asp	

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<211> 2436			
<212> DNA			
<213> Homo Sapien			
<400> 99			
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 tgtccagtgg gatcagcaca gtcaccaatt ctgagtccag cacaccctcc 1300  
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<210> 100  
 <211> 596  
 <212> PRT  
 <213> Homo Sapien

<400> 100

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Leu	His	Leu	Glu	Ala	Ala	Thr	Asn	Ser	Asn	Glu	Thr	Ser	Thr	Ser
				20					25					30
Ala	Asn	Thr	Gly	Ser	Ser	Val	Ile	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				35					40					45
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala
				50					55					60
Thr	Ile	Ser	Gly	Ser	Ser	Val	Thr	Ser	Asn	Gly	Val	Ser	Ile	Val
				65					70					75
Thr	Asn	Ser	Glu	Phe	His	Thr	Thr	Ser	Ser	Gly	Ile	Ser	Thr	Ala
				80					85					90
Thr	Asn	Ser	Glu	Phe	Ser	Thr	Ala	Ser	Ser	Gly	Ile	Ser	Ile	Ala
				95					100					105
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				110					115					120
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Ser	Thr	Val
				125					130					135
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				140					145					150
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala
				155					160					165
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Leu	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				170					175					180
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				185					190					195
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				200					205					210
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala
				215					220					225
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				230					235					240
Thr	Asn	Ser	Glu	Ser	Arg	Thr	Thr	Ser	Asn	Gly	Ala	Gly	Thr	Ala
				245					250					255
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				260					265					270
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				275					280					285



Thr Asn Ser Glu	Ser Ser Thr	Thr Ser Ser Gly Ala Ser Thr	Ala
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Thr Asn Ser Glu	Ser Ser Thr	Thr Ser Ser Gly Ala Ser Thr	Ala
	305	310	315
Thr Asn Ser Asp	Ser Ser Thr	Thr Ser Ser Gly Ala Gly Thr	Ala
	320	325	330
Thr Asn Ser Glu	Ser Ser Thr	Val Ser Ser Gly Ile Ser Thr	Val
	335	340	345
Thr Asn Ser Glu	Ser Ser Thr	Pro Ser Ser Gly Ala Asn Thr	Ala
	350	355	360
Thr Asn Ser Glu	Ser Ser Thr	Thr Ser Ser Gly Ala Asn Thr	Ala
	365	370	375
Thr Asn Ser Glu	Ser Ser Thr	Val Ser Ser Gly Ala Ser Thr	Ala
	380	385	390
Thr Asn Ser Glu	Ser Ser Thr	Thr Ser Ser Gly Val Ser Thr	Ala
	395	400	405
Thr Asn Ser Glu	Ser Ser Thr	Thr Ser Ser Gly Ala Ser Thr	Ala
	410	415	420
Thr Asn Ser Asp	Ser Ser Thr	Thr Ser Ser Glu Ala Ser Thr	Ala
	425	430	435
Thr Asn Ser Glu	Ser Ser Thr	Val Ser Ser Gly Ile Ser Thr	Val
	440	445	450
Thr Asn Ser Glu	Ser Ser Thr	Thr Ser Ser Gly Ala Asn Thr	Ala
	455	460	465
Thr Asn Ser Gly	Ser Ser Val	Thr Ser Ala Gly Ser Gly Thr	Ala
	470	475	480
Ala Leu Thr Gly	Met His Thr	Thr Ser His Ser Ala Ser Thr	Ala
	485	490	495
Val Ser Glu Ala	Lys Pro Gly Gly	Ser Leu Val Pro Trp Glu Ile	
	500	505	510
Phe Leu Ile Thr	Leu Val Ser Val	Val Ala Ala Val Gly Leu Phe	
	515	520	525
Ala Gly Leu Phe	Phe Cys Val Arg	Asn Ser Leu Ser Leu Arg Asn	
	530	535	540
Thr Phe Asn Thr	Ala Val Tyr His	Pro His Gly Leu Asn His Gly	
	545	550	555
Leu Gly Pro Gly	Pro Gly Gly Asn His	Gly Ala Pro His Arg Pro	
	560	565	570

Arg Trp Ser Pro Asn Trp Phe Trp Arg Arg Pro Val Ser Ser Ile  
575 580 585

Ala Met Glu Met Ser Gly Arg Asn Ser Gly Pro  
590 595

<210> 101  
<211> 1728  
<212> DNA  
<213> Homo Sapien

<400> 101  
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agaaagaagt gtcattatca tgaaccatcg gacaagaatg gactggatgt 600  
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<210> 102

<211> 414

<212> PRT

<213> Homo Sapien

<400> 102

Met	His	Ser	Arg	Gly	Arg	Glu	Ile	Val	Val	Leu	Leu	Asn	Pro	Trp
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Ser	Ile	Asn	Glu	Ala	Val	Ser	Ser	Tyr	Cys	Thr	Tyr	Phe	Ile	Lys
			20						25					30

Gln	Asp	Ser	Lys	Ser	Phe	Gly	Ile	Met	Val	Ser	Trp	Lys	Gly	Ile
			35						40					45

Tyr	Phe	Ile	Leu	Thr	Leu	Phe	Trp	Gly	Ser	Phe	Phe	Gly	Ser	Ile
			50						55					60

Phe	Met	Leu	Ser	Pro	Phe	Leu	Pro	Leu	Met	Phe	Val	Asn	Pro	Ser
			65						70					75

Trp	Tyr	Arg	Trp	Ile	Asn	Asn	Arg	Leu	Val	Ala	Thr	Trp	Leu	Thr
			80						85					90

Leu	Pro	Val	Ala	Leu	Leu	Glu	Thr	Met	Phe	Gly	Val	Lys	Val	Ile
			95						100					105

Ile	Thr	Gly	Asp	Ala	Phe	Val	Pro	Gly	Glu	Arg	Ser	Val	Ile	Ile
			110						115					120

Met	Asn	His	Arg	Thr	Arg	Met	Asp	Trp	Met	Phe	Leu	Trp	Asn	Cys
			125						130					135

Leu Met Arg Tyr	Ser Tyr Leu Arg	Leu Glu Lys Ile Cys Leu Lys	140	145	150
Ala Ser Leu Lys	Gly Val Pro Gly Phe	Gly Trp Ala Met Gln Ala	155	160	165
Ala Ala Tyr Ile	Phe Ile His Arg Lys	Trp Lys Asp Asp Lys Ser	170	175	180
His Phe Glu Asp	Met Ile Asp Tyr Phe	Cys Asp Ile His Glu Pro	185	190	195
Leu Gln Leu Leu	Ile Phe Pro Glu Gly	Thr Asp Leu Thr Glu Asn	200	205	210
Ser Lys Ser Arg	Ser Asn Ala Phe Ala	Glu Lys Asn Gly Leu Gln	215	220	225
Lys Tyr Glu Tyr	Val Leu His Pro Arg	Thr Thr Gly Phe Thr Phe	230	235	240
Val Val Asp Arg	Leu Arg Glu Gly Lys	Asn Leu Asp Ala Val His	245	250	255
Asp Ile Thr Val	Ala Tyr Pro His Asn	Ile Pro Gln Ser Glu Lys	260	265	270
His Leu Leu Gln	Gly Asp Phe Pro Arg	Glu Ile His Phe His Val	275	280	285
His Arg Tyr Pro	Ile Asp Thr Leu Pro	Thr Ser Lys Glu Asp Leu	290	295	300
Gln Leu Trp Cys	His Lys Arg Trp Glu	Glu Lys Glu Glu Arg Leu	305	310	315
Arg Ser Phe Tyr	Gln Gly Glu Lys Asn	Phe Tyr Phe Thr Gly Gln	320	325	330
Ser Val Ile Pro	Pro Cys Lys Ser Glu	Leu Arg Val Leu Val Val	335	340	345
Lys Leu Leu Ser	Ile Leu Tyr Trp Thr	Leu Phe Ser Pro Ala Met	350	355	360
Cys Leu Leu Ile	Tyr Leu Tyr Ser Leu	Val Lys Trp Tyr Phe Ile	365	370	375
Ile Thr Ile Val	Ile Phe Val Leu Gln	Glu Arg Ile Phe Gly Gly	380	385	390
Leu Glu Ile Ile	Glu Leu Ala Cys Tyr	Arg Leu Leu His Lys Gln	395	400	405
Pro His Leu Asn	Ser Lys Lys Asn Glu		410		

<210> 103  
 <211> 2403  
 <212> DNA  
 <213> Homo Sapien

<400> 103  
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 gtccatatcc ctcattaaca cagacacaaa aattctaaat aaaattttta 2250  
 caaattaaac taaacaatat atttaaagat gatataatac tactcagtgt 2300  
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aaa 2403

<210> 104

<211> 466

<212> PRT

<213> Homo Sapien

<400> 104

Met	Ala	Phe	Val	Leu	Ile	Leu	Val	Leu	Ser	Phe	Tyr	Glu	Leu	Val
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Ser Gly Gln Trp Gln Val Thr Gly Pro Gly Lys Phe Val Gln Ala

20							25							30						
Leu	Val	Gly	Glu	Asp	Ala	Val	Phe	Ser	Cys	Ser	Leu	Phe	Pro	Glu						
				35					40					45						
Thr	Ser	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Asn	Gln	Phe						
				50					55					60						
His	Ala	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Glu	Asp	Trp	Glu	Ser						
				65					70					75						
Lys	Gln	Met	Pro	Gln	Tyr	Arg	Gly	Arg	Thr	Glu	Phe	Val	Lys	Asp						
				80					85					90						
Ser	Ile	Ala	Gly	Gly	Arg	Val	Ser	Leu	Arg	Leu	Lys	Asn	Ile	Thr						
				95					100					105						
Pro	Ser	Asp	Ile	Gly	Leu	Tyr	Gly	Cys	Trp	Phe	Ser	Ser	Gln	Ile						
				110					115					120						
Tyr	Asp	Glu	Glu	Ala	Thr	Trp	Glu	Leu	Arg	Val	Ala	Ala	Leu	Gly						
				125					130					135						
Ser	Leu	Pro	Leu	Ile	Ser	Ile	Val	Gly	Tyr	Val	Asp	Gly	Gly	Ile						
				140					145					150						
Gln	Leu	Leu	Cys	Leu	Ser	Ser	Gly	Trp	Phe	Pro	Gln	Pro	Thr	Ala						
				155					160					165						
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Ser	Asp	Ser	Arg						
				170					175					180						
Ala	Asn	Ala	Asp	Gly	Tyr	Ser	Leu	Tyr	Asp	Val	Glu	Ile	Ser	Ile						
				185					190					195						
Ile	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Leu	Cys	Ser	Ile	His	Leu						
				200					205					210						
Ala	Glu	Gln	Ser	His	Glu	Val	Glu	Ser	Lys	Val	Leu	Ile	Gly	Glu						
				215					220					225						
Thr	Phe	Phe	Gln	Pro	Ser	Pro	Trp	Arg	Leu	Ala	Ser	Ile	Leu	Leu						
				230					235					240						
Gly	Leu	Leu	Cys	Gly	Ala	Leu	Cys	Gly	Val	Val	Met	Gly	Met	Ile						
				245					250					255						
Ile	Val	Phe	Phe	Lys	Ser	Lys	Gly	Lys	Ile	Gln	Ala	Glu	Leu	Asp						
				260					265					270						
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys						
				275					280					285						
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys						
				290					295					300						
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro						

305	310	315
Gln Glu Val Pro His Ser Glu Lys Arg Phe Thr Arg Lys Ser Val		
320	325	330
Val Ala Ser Gln Gly Phe Gln Ala Gly Arg His Tyr Trp Glu Val		
335	340	345
Asp Val Gly Gln Asn Val Gly Trp Tyr Val Gly Val Cys Arg Asp		
350	355	360
Asp Val Asp Arg Gly Lys Asn Asn Val Thr Leu Ser Pro Asn Asn		
365	370	375
Gly Tyr Trp Val Leu Arg Leu Thr Thr Glu His Leu Tyr Phe Thr		
380	385	390
Phe Asn Pro His Phe Ile Ser Leu Pro Pro Ser Thr Pro Pro Thr		
395	400	405
Arg Val Gly Val Phe Leu Asp Tyr Glu Gly Gly Thr Ile Ser Phe		
410	415	420
Phe Asn Thr Asn Asp Gln Ser Leu Ile Tyr Thr Leu Leu Thr Cys		
425	430	435
Gln Phe Glu Gly Leu Leu Arg Pro Tyr Ile Gln His Ala Met Tyr		
440	445	450
Asp Glu Glu Lys Gly Thr Pro Ile Phe Ile Cys Pro Val Ser Trp		
455	460	465

Gly

<210> 105  
 <211> 2103  
 <212> DNA  
 <213> Homo Sapien

<400> 105  
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 gtcattcttca tatccctgat tgcctggca gtgtgcattg gactcactgt 150  
 tcattatgtg agatataatc aaaagaagac ctacaattac tatagcacat 200  
 tgtcattttac aactgacaaa ctatatgctg agtttggcag agaggcttct 250  
 aacaatttta cagaaatgag ccagagactt gaatcaatgg tgaaaaatgc 300  
 attttataaa tctccattaa gggaagaatt tgtcaagtct caggttatca 350  
 agttcagtca acagaagcat ggagtgttgg ctcatatgct gttgatttgt 400  
 agatttcact ctactgagga tcctgaaact gtagataaaa ttgttcaact 450



tgtttttacat gaaaagctgc aagatgctgt aggacccccct aaagtagatc 500  
 ctcaactcagt taaaattaaa aaaatcaaca agacagaaac agacagctat 550  
 ctaaaccatt gctgcggaac acgaagaagt aaaactctag gtcagagtct 600  
 caggatcggt ggtgggacag aagtagaaga gggatgaatgg ccctggcagg 650  
 ctagcctgca gtgggatggg agtcatcgct gtggagcaac cttaattaat 700  
 gccacatggc ttgtgagtgc tgctcactgt ttacaacat ataagaaccc 750  
 tgccagatgg actgcttcct ttggagtaac aataaaacct tcgaaaatga 800  
 aacgggggtc ccggagaata attgtccatg aaaaatacaa acacccatca 850  
 catgactatg atattttctt tgcagagctt tctagccctg ttccctacac 900  
 aaatgcagta catagagttt gtctccctga tgcattcctat gagtttcaac 950  
 caggatgatgt gatgtttgtg acaggatttg gagcactgaa aaatgatggg 1000  
 tacagtcaaa atcatcttcg acaagcacag gtgactctca tagacgctac 1050  
 aacttgcaat gaacctcaag cttacaatga cgccataact cctagaatgt 1100  
 tatgtgctgg ctcccttagaa ggaaaaacag atgcatgcca gggtgactct 1150  
 ggaggaccac tgggttagttc agatgctaga gatattctgg accttgctgg 1200  
 aatagtgagc tggggagatg aatgtgctga acccaacaag cctgggtgtt 1250  
 atactagagt tacggccttg cgggactgga ttacttcaaa aactgggtatc 1300  
 taagagacaa aagcctcatg gaacagataa catttttttt tgttttttgg 1350  
 gtgtggaggc cattttttaga gatacagaat tggagaagac ttgcaaaaaca 1400  
 gctagatttg actgatctca ataaactgtt tgcttgatgc atgtattttc 1450  
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 tgtcatctgt gagcaatagt tgaaacttta tgtacataga gaaatagata 1550  
 atacaatatt acattacagc ctgtattcat ttgttctcta gaagttttgt 1600  
 cagaattttg acttggtgac ataaatttgt aatgcatata tacaatttga 1650  
 agcactcctt ttcttcagtt cctcagctcc tctcatttca gcaaatatcc 1700  
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 tcccctacat ttatttgga cagaaaagta ttaggtgttt ttcttagtgg 1800  
 aatattagaa atgatcatat tcattatgaa aggtcaagca aagacagcag 1850  
 aataccaatc acttcatcat ttaggaagta tgggaactaa gttaaggaag 1900

tccagaaaga agccaagata tatccttatt ttcatttcca aacaactact 1950  
 atgataaatg tgaagaagat tctgtttttt tgtgacctat aataattata 2000  
 caaacttcat gcaatgtact tgttctaagc aaattaaagc aaatatttat 2050  
 ttaacattgt tactgaggat gtcaacatat aacaataaaa tataaatcac 2100  
 cca 2103

<210> 106  
 <211> 423  
 <212> PRT  
 <213> Homo Sapien

<400> 106  
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 Trp Glu Pro Trp Val Ile Gly Leu Val Ile Phe Ile Ser Leu Ile  
                     20                    25                    30  
 Val Leu Ala Val Cys Ile Gly Leu Thr Val His Tyr Val Arg Tyr  
                     35                    40                    45  
 Asn Gln Lys Lys Thr Tyr Asn Tyr Tyr Ser Thr Leu Ser Phe Thr  
                     50                    55                    60  
 Thr Asp Lys Leu Tyr Ala Glu Phe Gly Arg Glu Ala Ser Asn Asn  
                     65                    70                    75  
 Phe Thr Glu Met Ser Gln Arg Leu Glu Ser Met Val Lys Asn Ala  
                     80                    85                    90  
 Phe Tyr Lys Ser Pro Leu Arg Glu Glu Phe Val Lys Ser Gln Val  
                     95                    100                    105  
 Ile Lys Phe Ser Gln Gln Lys His Gly Val Leu Ala His Met Leu  
                     110                    115                    120  
 Leu Ile Cys Arg Phe His Ser Thr Glu Asp Pro Glu Thr Val Asp  
                     125                    130                    135  
 Lys Ile Val Gln Leu Val Leu His Glu Lys Leu Gln Asp Ala Val  
                     140                    145                    150  
 Gly Pro Pro Lys Val Asp Pro His Ser Val Lys Ile Lys Lys Ile  
                     155                    160                    165  
 Asn Lys Thr Glu Thr Asp Ser Tyr Leu Asn His Cys Cys Gly Thr  
                     170                    175                    180  
 Arg Arg Ser Lys Thr Leu Gly Gln Ser Leu Arg Ile Val Gly Gly  
                     185                    190                    195  
 Thr Glu Val Glu Glu Gly Glu Trp Pro Trp Gln Ala Ser Leu Gln

200							205							210						
Trp	Asp	Gly	Ser	His	Arg	Cys	Gly	Ala	Thr	Leu	Ile	Asn	Ala	Thr						
				215					220				225							
Trp	Leu	Val	Ser	Ala	Ala	His	Cys	Phe	Thr	Thr	Tyr	Lys	Asn	Pro						
				230					235				240							
Ala	Arg	Trp	Thr	Ala	Ser	Phe	Gly	Val	Thr	Ile	Lys	Pro	Ser	Lys						
				245					250				255							
Met	Lys	Arg	Gly	Leu	Arg	Arg	Ile	Ile	Val	His	Glu	Lys	Tyr	Lys						
				260					265				270							
His	Pro	Ser	His	Asp	Tyr	Asp	Ile	Ser	Leu	Ala	Glu	Leu	Ser	Ser						
				275					280				285							
Pro	Val	Pro	Tyr	Thr	Asn	Ala	Val	His	Arg	Val	Cys	Leu	Pro	Asp						
				290					295				300							
Ala	Ser	Tyr	Glu	Phe	Gln	Pro	Gly	Asp	Val	Met	Phe	Val	Thr	Gly						
				305					310				315							
Phe	Gly	Ala	Leu	Lys	Asn	Asp	Gly	Tyr	Ser	Gln	Asn	His	Leu	Arg						
				320					325				330							
Gln	Ala	Gln	Val	Thr	Leu	Ile	Asp	Ala	Thr	Thr	Cys	Asn	Glu	Pro						
				335					340				345							
Gln	Ala	Tyr	Asn	Asp	Ala	Ile	Thr	Pro	Arg	Met	Leu	Cys	Ala	Gly						
				350					355				360							
Ser	Leu	Glu	Gly	Lys	Thr	Asp	Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly						
				365					370				375							
Pro	Leu	Val	Ser	Ser	Asp	Ala	Arg	Asp	Ile	Trp	Tyr	Leu	Ala	Gly						
				380					385				390							
Ile	Val	Ser	Trp	Gly	Asp	Glu	Cys	Ala	Lys	Pro	Asn	Lys	Pro	Gly						
				395					400				405							
Val	Tyr	Thr	Arg	Val	Thr	Ala	Leu	Arg	Asp	Trp	Ile	Thr	Ser	Lys						
				410					415				420							

Thr Gly Ile

<210> 107

<211> 2397

<212> DNA

<213> Homo Sapien

<400> 107

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cccagggcggg cgtggggcac cgggcccagc gccgacgac gctgccgttt 150  
tgcccttggg agtaggatgt ggtgaaagga tggggcttct cccttacggg 200  
gctcacaatg gccagagaag attccgtgaa gtgtctgcgc tgctgtctct 250  
acgccctcaa tctgctcttt tggttaatgt ccatcagtgt gttggcagtt 300  
tctgcttgga tgagggacta cctaaataat gttctcactt taactgcaga 350  
aacgagggtg gaggaagcag tcattttgac ttactttcct gtggttcac 400  
cggtcacgat tgctgtttgc tgtttectta tcattgtggg gatgttagga 450  
tattgtggaa cggtgaaaag aaatctgttg cttcttgcac ggtactttgg 500  
aagtttgctt gtcattttct gtgtagaact ggcttgtggc gtttggacat 550  
atgaacagga acttatgggt ccagtacaat ggtcagatat ggtcactttg 600  
aaagccagga tgacaaatta tggattacct agatatcggt ggcttactca 650  
tgcttggaat ttttttcaga gagagttaa gtgctgtgga gtagtatatt 700  
tcactgactg gttggaaatg acagagatgg actggcccc agattcctgc 750  
tgtgttagag aattcccagg atgttccaaa caggcccacc aggaagatct 800  
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gaggaaccaa acaactgcag gtgctgaggt ttctgggaat ctccattggg 900  
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atgacaactc tcagcacctg tcattgtcct cagtagaact gttgaaacca 1050  
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acactttgag atggaggagt tataaaaaga aatgtcacag aagaaaacca 1150  
caaacttggt ttattggact tgtgaatttt tgagtacata ctatgtgttt 1200  
cagaaatatg tagaaataaa aatgttgcca taaaataaca cctaagcata 1250  
tactattcta tgctttaaaa tgaggatgga aaagtttcat gtcataagtc 1300  
accacctgga caataattga tgcccttaaa atgctgaaga cagatgtcat 1350  
accactgtg tagcctgtgt atgactttta ctgaacacag ttatgttttg 1400  
aggcagcatg gtttgattag catttccgca tccatgcaaa cgagtcacat 1450  
atggtgggac tggagccata gtaaagggtg atttacttct accaactagt 1500  
atataaagta ctaattaaat gctaacatag gaagttagaa aatactaata 1550

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 cagaaaactt tcaatattgg tgactaccta aatgtgattt ttgctgggta 1650  
 ctaaaatatt cttaccactt aaaagagcaa gctaacacat tgtcttaagc 1700  
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 tcgatttcag ttctgataat gttagaata accattatga aaaggaaaat 1800  
 ttgtcctgta tagcatcatt atttttagcc tttcctgtta ataaagcttt 1850  
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 taaccactaa ttttgaaaat taccagtgtg atacatagga atcattattc 1950  
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 ttctttttct ccagaaaaat gcttggtgaga atcattaaaa catgtgacaa 2200  
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 cacagattat taaatttttt tacaagagta tagtatattt atttgaaatg 2300  
 ggaaaagtgc attttactgt attttgtgta ttttgtttat ttctcagaat 2350  
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<210> 108  
 <211> 305  
 <212> PRT  
 <213> Homo Sapien

<400> 108  
 Met Ala Arg Glu Asp Ser Val Lys Cys Leu Arg Cys Leu Leu Tyr  
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 Ala Leu Asn Leu Leu Phe Trp Leu Met Ser Ile Ser Val Leu Ala  
 20 25 30  
 Val Ser Ala Trp Met Arg Asp Tyr Leu Asn Asn Val Leu Thr Leu  
 35 40 45  
 Thr Ala Glu Thr Arg Val Glu Glu Ala Val Ile Leu Thr Tyr Phe  
 50 55 60  
 Pro Val Val His Pro Val Met Ile Ala Val Cys Cys Phe Leu Ile  
 65 70 75  
 Ile Val Gly Met Leu Gly Tyr Cys Gly Thr Val Lys Arg Asn Leu  
 80 85 90

Leu	Leu	Leu	Ala	Trp	Tyr	Phe	Gly	Ser	Leu	Leu	Val	Ile	Phe	Cys	
				95					100					105	
Val	Glu	Leu	Ala	Cys	Gly	Val	Trp	Thr	Tyr	Glu	Gln	Glu	Leu	Met	
				110					115					120	
Val	Pro	Val	Gln	Trp	Ser	Asp	Met	Val	Thr	Leu	Lys	Ala	Arg	Met	
				125					130					135	
Thr	Asn	Tyr	Gly	Leu	Pro	Arg	Tyr	Arg	Trp	Leu	Thr	His	Ala	Trp	
				140					145					150	
Asn	Phe	Phe	Gln	Arg	Glu	Phe	Lys	Cys	Cys	Gly	Val	Val	Tyr	Phe	
				155					160					165	
Thr	Asp	Trp	Leu	Glu	Met	Thr	Glu	Met	Asp	Trp	Pro	Pro	Asp	Ser	
				170					175					180	
Cys	Cys	Val	Arg	Glu	Phe	Pro	Gly	Cys	Ser	Lys	Gln	Ala	His	Gln	
				185					190					195	
Glu	Asp	Leu	Ser	Asp	Leu	Tyr	Gln	Glu	Gly	Cys	Gly	Lys	Lys	Met	
				200					205					210	
Tyr	Ser	Phe	Leu	Arg	Gly	Thr	Lys	Gln	Leu	Gln	Val	Leu	Arg	Phe	
				215					220					225	
Leu	Gly	Ile	Ser	Ile	Gly	Val	Thr	Gln	Ile	Leu	Ala	Met	Ile	Leu	
				230					235					240	
Thr	Ile	Thr	Leu	Leu	Trp	Ala	Leu	Tyr	Tyr	Asp	Arg	Arg	Glu	Pro	
				245					250					255	
Gly	Thr	Asp	Gln	Met	Met	Ser	Leu	Lys	Asn	Asp	Asn	Ser	Gln	His	
				260					265					270	
Leu	Ser	Cys	Pro	Ser	Val	Glu	Leu	Leu	Lys	Pro	Ser	Leu	Ser	Arg	
				275					280					285	
Ile	Phe	Glu	His	Thr	Ser	Met	Ala	Asn	Ser	Phe	Asn	Thr	His	Phe	
				290					295					300	
Glu	Met	Glu	Glu	Leu											
				305											

<210> 109

<211> 2339

<212> DNA

<213> Homo Sapien

<400> 109

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gaggccttaa aaaaaaaagt gcttgaaaga gaaggggaca aaggaacacc 150

agtattaaga ggattttcca gtgtttctgg cagttggtcc agaaggatgc 200  
 ctccattcct gcttctcacc tgctcttcca tcacaggcac ctccgtgtca 250  
 cccgtggccc tagatccttg ttctgcttac atcagcctga atgagccctg 300  
 gaggaacact gaccaccagt tggatgagtc tcaaggctcct cctctatgtg 350  
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 gccatgccta ccttctgcat accagaaaac cactgtggaa cccacgcacc 450  
 tgtctggctc aatggcagcc accccctaga aggcgacggc attgtgcaac 500  
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 gtggaagtca aggcttgccc tggaggctac tatgtgtatc gtctgaccaa 600  
 gccacgcgtc tgcttccacg tctactgtgg tcatttttat gacatctgcg 650  
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 ggtcacagca ctgctgaaca atgtggcctg ggtgggggttt catctttcta 2050  
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 catttctttc ctacacttaa atacctcgtg tatggtgcaa tcagaccaca 2150  
 aaatcagaag ctgggtataa tatttcaagt taaaaccct agaaaaatta 2200  
 aacagttact gaaattatga cttaaatacc caatgactcc ttaaataatgt 2250  
 aaattatagt tataccttga aatttcaatt caaatgcaga ctaattatag 2300  
 ggaatttgga agtgtatcaa taaaacagta tataatttt 2339

<210> 110  
 <211> 545  
 <212> PRT  
 <213> Homo Sapien

<400> 110  
 Met Pro Pro Phe Leu Leu Leu Thr Cys Leu Phe Ile Thr Gly Thr  
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 20 25 30  
 Leu Asn Glu Pro Trp Arg Asn Thr Asp His Gln Leu Asp Glu Ser  
 35 40 45  
 Gln Gly Pro Pro Leu Cys Asp Asn His Val Asn Gly Glu Trp Tyr  
 50 55 60  
 His Phe Thr Gly Met Ala Gly Asp Ala Met Pro Thr Phe Cys Ile  
 65 70 75  
 Pro Glu Asn His Cys Gly Thr His Ala Pro Val Trp Leu Asn Gly  
 80 85 90  
 Ser His Pro Leu Glu Gly Asp Gly Ile Val Gln Arg Gln Ala Cys  
 95 100 105



Ala Ser Phe Asn Gly Asn Cys Cys Leu Trp Asn Thr Thr Val Glu	110	115	120
Val Lys Ala Cys Pro Gly Gly Tyr Tyr Val Tyr Arg Leu Thr Lys	125	130	135
Pro Ser Val Cys Phe His Val Tyr Cys Gly His Phe Tyr Asp Ile	140	145	150
Cys Asp Glu Asp Cys His Gly Ser Cys Ser Asp Thr Ser Glu Cys	155	160	165
Thr Cys Ala Pro Gly Thr Val Leu Gly Pro Asp Arg Gln Thr Cys	170	175	180
Phe Asp Glu Asn Glu Cys Glu Gln Asn Asn Gly Gly Cys Ser Glu	185	190	195
Ile Cys Val Asn Leu Lys Asn Ser Tyr Arg Cys Glu Cys Gly Val	200	205	210
Gly Arg Val Leu Arg Ser Asp Gly Lys Thr Cys Glu Asp Val Glu	215	220	225
Gly Cys His Asn Asn Asn Gly Gly Cys Ser His Ser Cys Leu Gly	230	235	240
Ser Glu Lys Gly Tyr Gln Cys Glu Cys Pro Arg Gly Leu Val Leu	245	250	255
Ser Glu Asp Asn His Thr Cys Gln Val Pro Val Leu Cys Lys Ser	260	265	270
Asn Ala Ile Glu Val Asn Ile Pro Arg Glu Leu Val Gly Gly Leu	275	280	285
Glu Leu Phe Leu Thr Asn Thr Ser Cys Arg Gly Val Ser Asn Gly	290	295	300
Thr His Val Asn Ile Leu Phe Ser Leu Lys Thr Cys Gly Thr Val	305	310	315
Val Asp Val Val Asn Asp Lys Ile Val Ala Ser Asn Leu Val Thr	320	325	330
Gly Leu Pro Lys Gln Thr Pro Gly Ser Ser Gly Asp Phe Ile Ile	335	340	345
Arg Thr Ser Lys Leu Leu Ile Pro Val Thr Cys Glu Phe Pro Arg	350	355	360
Leu Tyr Thr Ile Ser Glu Gly Tyr Val Pro Asn Leu Arg Asn Ser	365	370	375
Pro Leu Glu Ile Met Ser Arg Asn His Gly Ile Phe Pro Phe Thr	380	385	390

Leu	Glu	Ile	Phe	Lys	Asp	Asn	Glu	Phe	Glu	Glu	Pro	Tyr	Arg	Glu	
				395					400					405	
Ala	Leu	Pro	Thr	Leu	Lys	Leu	Arg	Asp	Ser	Leu	Tyr	Phe	Gly	Ile	
				410					415					420	
Glu	Pro	Val	Val	His	Val	Ser	Gly	Leu	Glu	Ser	Leu	Val	Glu	Ser	
				425					430					435	
Cys	Phe	Ala	Thr	Pro	Thr	Ser	Lys	Ile	Asp	Glu	Val	Leu	Lys	Tyr	
				440					445					450	
Tyr	Leu	Ile	Arg	Asp	Gly	Cys	Val	Ser	Asp	Asp	Ser	Val	Lys	Gln	
				455					460					465	
Tyr	Thr	Ser	Arg	Asp	His	Leu	Ala	Lys	His	Phe	Gln	Val	Pro	Val	
				470					475					480	
Phe	Lys	Phe	Val	Gly	Lys	Asp	His	Lys	Glu	Val	Phe	Leu	His	Cys	
				485					490					495	
Arg	Val	Leu	Val	Cys	Gly	Val	Leu	Asp	Glu	Arg	Ser	Arg	Cys	Ala	
				500					505					510	
Gln	Gly	Cys	His	Arg	Arg	Met	Arg	Arg	Gly	Ala	Gly	Gly	Glu	Asp	
				515					520					525	
Ser	Ala	Gly	Leu	Gln	Gly	Gln	Thr	Leu	Thr	Gly	Gly	Pro	Ile	Arg	
				530					535					540	
Ile	Asp	Trp	Glu	Asp											
				545											

<210> 111  
 <211> 2063  
 <212> DNA  
 <213> Homo Sapien

<400> 111  
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 caaggcctgc cctgcactcg ggcctcctcc agccagtgc gaccaggac 100  
 ttctgacctg ctggccagcc aggacctgtg tggggaggcc ctctgctgc 150  
 cttgggggtga caatctcagc tccaggctac agggagaccg ggaggatcac 200  
 agagccagca tggtacagga tcttgacagt gatcaacctc tgaacagcct 250  
 cgatgtcaaaa cccctgcgca aaccccgat ccccatggag accttcagaa 300  
 aggtggggat ccccatcatc atagcactac tgagcctggc gagtatcatc 350  
 attgtggttg tcctcatcaa ggtgattctg gataaatact acttcctctg 400  
 cgggcagcct ctccacttca tcccaggaa gcagctgtgt gacggagagc 450

tggactgtcc cttgggggag gacgaggagc actgtgtcaa gagcttcccc 500  
 gaagggcctg cagtggcagt ccgcctctcc aaggaccgat ccacactgca 550  
 ggtgctggac tcggccacag ggaactgggt ctctgcctgt ttcgacaact 600  
 tcacagaagc tctcgtgag acagcctgta ggcagatggg ctacagcaga 650  
 gctgtggaga ttggcccaga ccaggatctg gatgttgttg aaatcacaga 700  
 aaacagccag gagcttcgca tgcggaactc aagtggggcc tgtctctcag 750  
 gctccctggg ctccctgcac tgtcttgccg gtgggaagag cctgaagacc 800  
 ccccggtggg tgggtgggga ggaggcctct gtggattctt ggccttggca 850  
 ggtcagcatc cagtacgaca aacagcacgt ctgtggaggg agcatcctgg 900  
 acccccactg ggtcctcacg gcagcccact gcttcaggaa acataccgat 950  
 gtgttcaact ggaaggtgcg ggcaggctca gacaaactgg gcagcttccc 1000  
 atccctgggt gtggccaaga tcatcatcat tgaattcaac cccatgtacc 1050  
 ccaaagacaa tgacatcgcc ctcatgaagc tgcagttccc actcactttc 1100  
 tcaggcacag tcaggcccat ctgtctgccc ttctttgatg aggagctcac 1150  
 tccagccacc ccactctgga tcattggatg gggctttacg aagcagaatg 1200  
 gaggggaagat gtctgacata ctgctgcagg cgtcagtcca ggtcattgac 1250  
 agcacacggg gcaatgcaga cgatgcgtac cagggggaag tcaccgagaa 1300  
 gatgatgtgt gcaggcatcc cggaaggggg tgtggacacc tgccaggggtg 1350  
 acagtgggtg gcccctgatg taccaatctg accagtggca tgtgggtggc 1400  
 atcgttagct ggggctatgg ctgcgggggc ccgagcacc caggagtata 1450  
 caccaagggtc tcagcctatc tcaactggat ctacaatgtc tggaaggctg 1500  
 agctgtaatg ctgctgcccc tttgcagtgc tgggagccgc ttcttctctg 1550  
 ccctgcccac ctgggggatcc cccaaagtca gacacagagc aagagtcccc 1600  
 ttgggtacac ccctctgccc acagcctcag catttcttgg agcagcaaag 1650  
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 gtcagcagcc ctagctcggc cacacttggg gctcccagca tcccaggag 1750  
 agacacagcc cactgaacaa ggtctcagg gtattgctaa gccagaagg 1800  
 aactttccca cactactgaa tggaagcagg ctgtcttgta aaagcccaga 1850  
 tcactgtggg ctggagagga gaaggaaagg gtctgcgcca gccctgtccg 1900

tcttcaccca tccccaagcc tactagagca agaaaccagt tgtaataataa 1950  
aatgcactgc cctactgttg gtatgactac cgttacctac tgttgtcatt 2000  
gttattacag ctatggccac tattattaaa gagctgtgta acatctctgg 2050  
caaaaaaaaaaaa aaa 2063

<210> 112  
<211> 432  
<212> PRT  
<213> Homo Sapien

<400> 112  
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1 5 10 15  
Val Lys Pro Leu Arg Lys Pro Arg Ile Pro Met Glu Thr Phe Arg  
20 25 30  
Lys Val Gly Ile Pro Ile Ile Ile Ala Leu Leu Ser Leu Ala Ser  
35 40 45  
Ile Ile Ile Val Val Val Leu Ile Lys Val Ile Leu Asp Lys Tyr  
50 55 60  
Tyr Phe Leu Cys Gly Gln Pro Leu His Phe Ile Pro Arg Lys Gln  
65 70 75  
Leu Cys Asp Gly Glu Leu Asp Cys Pro Leu Gly Glu Asp Glu Glu  
80 85 90  
His Cys Val Lys Ser Phe Pro Glu Gly Pro Ala Val Ala Val Arg  
95 100 105  
Leu Ser Lys Asp Arg Ser Thr Leu Gln Val Leu Asp Ser Ala Thr  
110 115 120  
Gly Asn Trp Phe Ser Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu  
125 130 135  
Ala Glu Thr Ala Cys Arg Gln Met Gly Tyr Ser Arg Ala Val Glu  
140 145 150  
Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr Glu Asn  
155 160 165  
Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu Ser  
170 175 180  
Gly Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Lys Ser Leu  
185 190 195  
Lys Thr Pro Arg Val Val Gly Gly Glu Glu Ala Ser Val Asp Ser  
200 205 210

Trp	Pro	Trp	Gln	Val	Ser	Ile	Gln	Tyr	Asp	Lys	Gln	His	Val	Cys
				215					220					225
Gly	Gly	Ser	Ile	Leu	Asp	Pro	His	Trp	Val	Leu	Thr	Ala	Ala	His
				230					235					240
Cys	Phe	Arg	Lys	His	Thr	Asp	Val	Phe	Asn	Trp	Lys	Val	Arg	Ala
				245					250					255
Gly	Ser	Asp	Lys	Leu	Gly	Ser	Phe	Pro	Ser	Leu	Ala	Val	Ala	Lys
				260					265					270
Ile	Ile	Ile	Ile	Glu	Phe	Asn	Pro	Met	Tyr	Pro	Lys	Asp	Asn	Asp
				275					280					285
Ile	Ala	Leu	Met	Lys	Leu	Gln	Phe	Pro	Leu	Thr	Phe	Ser	Gly	Thr
				290					295					300
Val	Arg	Pro	Ile	Cys	Leu	Pro	Phe	Phe	Asp	Glu	Glu	Leu	Thr	Pro
				305					310					315
Ala	Thr	Pro	Leu	Trp	Ile	Ile	Gly	Trp	Gly	Phe	Thr	Lys	Gln	Asn
				320					325					330
Gly	Gly	Lys	Met	Ser	Asp	Ile	Leu	Leu	Gln	Ala	Ser	Val	Gln	Val
				335					340					345
Ile	Asp	Ser	Thr	Arg	Cys	Asn	Ala	Asp	Asp	Ala	Tyr	Gln	Gly	Glu
				350					355					360
Val	Thr	Glu	Lys	Met	Met	Cys	Ala	Gly	Ile	Pro	Glu	Gly	Gly	Val
				365					370					375
Asp	Thr	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Met	Tyr	Gln	Ser
				380					385					390
Asp	Gln	Trp	His	Val	Val	Gly	Ile	Val	Ser	Trp	Gly	Tyr	Gly	Cys
				395					400					405
Gly	Gly	Pro	Ser	Thr	Pro	Gly	Val	Tyr	Thr	Lys	Val	Ser	Ala	Tyr
				410					415					420
Leu	Asn	Trp	Ile	Tyr	Asn	Val	Trp	Lys	Ala	Glu	Leu			
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<210> 113

<211> 1768

<212> DNA

<213> Homo Sapien

<400> 113

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tttttcagca actaaaaaag ccacaggagt tgaactgcta ggattctgac 150

tatgctgtgg tggctagtgc tcctactcct acctacatta aaatctgttt 200  
 tttgttctct tgtaactagc ctttaccttc ctaacacaga ggatctgtca 250  
 ctgtggctct ggcccaaacc tgaccttcac tctggaacga gaacagaggt 300  
 ttctaccac accgtcccct cgaagccggg gacagcctca ccttgctggc 350  
 ctctcgctgg agcagtggc tcaccaactg tctcacgtct ggaggcactg 400  
 actcgggcag tgcaggtagc tgagcctctt ggtagctgcg gctttcaagg 450  
 tgggccttgc cctggccgta gaagggttg acaagcccga agatttcata 500  
 ggcgatggct cccactggc aggcattcagc cttgctgtag tcaatcactg 550  
 ccctggggcc aggacgggccc gtggacacct gctcagaagc agtgggtgag 600  
 acatcacgct gcccgcccat ctaacctttt catgtcctgc acatcacctg 650  
 atccatgggc taatctgaac tctgtcccaa ggaaccaga gcttgagtga 700  
 gctgtggctc agaccagaa ggggtctgct tagaccacct ggtttatgtg 750  
 acaggacttg cattctcctg gaacatgagg gaacgccgga ggaaagcaaa 800  
 gtggcagggg aggaacttgt gccaaattat gggtcagaaa agatggaggt 850  
 gttgggttat cacaaggcat cgagtctcct gcattcagtg gacatgtggg 900  
 ggaagggctg ccgatggcgc atgacacact cgggactcac ctctggggcc 950  
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 ctgcaggccg atgtctcat cagccaggca gcagccaaaa tctgcgatca 1050  
 ccagccaggg gcagccgtct gggaaggagc aagcaaagt accatttctc 1100  
 ctcccctcct tccctctgag aggccctcct atgtccctac taaagccacc 1150  
 agcaagacat agctgacagg ggctaattggc tcagtgttgg ccaggaggt 1200  
 cagcaaggcc tgagagctga tcagaagggc ctgctgtgcg aacacggaaa 1250  
 tgctccagt aagcacaggc tgcaaaatcc ccaggcaaag gactgtgtgg 1300  
 ctcaatttaa atcatgttct agtaattgga gctgtcccca agaccaaagg 1350  
 agctagagct tggttcaaata gatctccaag ggcccttata cccaggaga 1400  
 ctttgatttg aatttgaaac cccaaatcca aacctaagaa ccagggtgat 1450  
 taagaatcag ttattgccgg gtgtgggtggc ctgtaatgcc aacattttgg 1500  
 gaggccgagg cgggtagatc acctgaggtc aggagttaa gaccagcctg 1550  
 gccaatggtg tgaaaccctt gtctctacta aaaatacaaa aaaactagcc 1600

aggcatggtg gtgtgtgcct gtatcccagc tactcgggag gctgagacag 1650  
 gagaattact tgaacctggg aggtgaagga ggctgagaca ggagaatcac 1700  
 ttcagcctga gcaacacagc gagactctgt ctcagaaaaa ataaaaaaag 1750  
 aattatggtt atttgtaa 1768

<210> 114  
 <211> 109  
 <212> PRT  
 <213> Homo Sapien

<400> 114  
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 Val Phe Cys Ser Leu Val Thr Ser Leu Tyr Leu Pro Asn Thr Glu  
                     20                    25                    30  
 Asp Leu Ser Leu Trp Leu Trp Pro Lys Pro Asp Leu His Ser Gly  
                     35                    40                    45  
 Thr Arg Thr Glu Val Ser Thr His Thr Val Pro Ser Lys Pro Gly  
                     50                    55                    60  
 Thr Ala Ser Pro Cys Trp Pro Leu Ala Gly Ala Val Pro Ser Pro  
                     65                    70                    75  
 Thr Val Ser Arg Leu Glu Ala Leu Thr Arg Ala Val Gln Val Ala  
                     80                    85                    90  
 Glu Pro Leu Gly Ser Cys Gly Phe Gln Gly Gly Pro Cys Pro Gly  
                     95                    100                    105  
 Arg Arg Arg Asp

<210> 115  
 <211> 1197  
 <212> DNA  
 <213> Homo Sapien

<400> 115  
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 gagagaccat ggcaaagaat cctccagaga attgtgaaga ctgtcacatt 100  
 ctaaatgcag aagctttttaa atccaagaaa atatgtaaat cacttaagat 150  
 ttgtggactg gtgttttgta tcttggccct aactctaatt gtctgtttt 200  
 gggggagcaa gcacttctgg ccggaggtac ccaaaaaagc ctatgacatg 250  
 gagcacactt tctacagcaa tggagagaag aagaagattt acatggaaat 300  
 tgatcctgtg accagaactg aaatattcag aagcggaaat ggactgatg 350

aaacattgga agtgcacgac tttaaaaacg gatacactgg catctacttc 400  
 gtgggtcttc aaaaatgttt tatcaaaact cagattaaag tgattcctga 450  
 attttctgaa ccagaagagg aaatagatga gaatgaagaa attaccacaa 500  
 ctttctttga acagtcagtg atttgggtcc cagcagaaaa gcctattgaa 550  
 aaccgagatt ttcttaaaaa ttccaaaatt ctggagattt gtgataacgt 600  
 gaccatgtat tggatcaatc ccactetaat atcagtttct gagttacaag 650  
 actttgagga ggaggagaga gatcttcact ttcctgccaa cgaaaaaaaa 700  
 gggattgaac aaaatgaaca gtgggtgggc cctcaagtga aagtagagaa 750  
 gaccgcgcac gccagacaag caagtgagga agaacttcca ataaatgact 800  
 atactgaaaa tggaatagaa tttgatccca tgctggatga gagagggttat 850  
 tgttgatatt actgccgtcg aggcaaccgc tattgccgcc gcgtctgtga 900  
 acctttacta ggctactacc catatccata ctgctaccaa ggaggacgag 950  
 tcatctgtcg tgtcatcatg ccttgtaact ggtgggtggc ccgcatgctg 1000  
 gggagggtct aataggaggt ttgagctcaa atgcttaaac tgctggcaac 1050  
 atataataaa tgcattgctat tcaatgaatt tctgcctatg aggcattctg 1100  
 cccctggtag ccagctctcc agaattactt gtaggtaatt cctctcttca 1150  
 tgttctaata aacttctaca ttatcaccaa aaaaaaaaaa aaaaaaa 1197

<210> 116

<211> 317

<212> PRT

<213> Homo Sapien

<400> 116

Met	Ala	Lys	Asn	Pro	Pro	Glu	Asn	Cys	Glu	Asp	Cys	His	Ile	Leu
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Asn	Ala	Glu	Ala	Phe	Lys	Ser	Lys	Lys	Ile	Cys	Lys	Ser	Leu	Lys
				20					25					30

Ile	Cys	Gly	Leu	Val	Phe	Gly	Ile	Leu	Ala	Leu	Thr	Leu	Ile	Val
				35					40					45

Leu	Phe	Trp	Gly	Ser	Lys	His	Phe	Trp	Pro	Glu	Val	Pro	Lys	Lys
				50					55					60

Ala	Tyr	Asp	Met	Glu	His	Thr	Phe	Tyr	Ser	Asn	Gly	Glu	Lys	Lys
				65					70					75

Lys	Ile	Tyr	Met	Glu	Ile	Asp	Pro	Val	Thr	Arg	Thr	Glu	Ile	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



80								85				90			
Arg	Ser	Gly	Asn	Gly	Thr	Asp	Glu	Thr	Leu	Glu	Val	His	Asp	Phe	
				95					100					105	
Lys	Asn	Gly	Tyr	Thr	Gly	Ile	Tyr	Phe	Val	Gly	Leu	Gln	Lys	Cys	
				110					115					120	
Phe	Ile	Lys	Thr	Gln	Ile	Lys	Val	Ile	Pro	Glu	Phe	Ser	Glu	Pro	
				125					130					135	
Glu	Glu	Glu	Ile	Asp	Glu	Asn	Glu	Glu	Ile	Thr	Thr	Thr	Phe	Phe	
				140					145					150	
Glu	Gln	Ser	Val	Ile	Trp	Val	Pro	Ala	Glu	Lys	Pro	Ile	Glu	Asn	
				155					160					165	
Arg	Asp	Phe	Leu	Lys	Asn	Ser	Lys	Ile	Leu	Glu	Ile	Cys	Asp	Asn	
				170					175					180	
Val	Thr	Met	Tyr	Trp	Ile	Asn	Pro	Thr	Leu	Ile	Ser	Val	Ser	Glu	
				185					190					195	
Leu	Gln	Asp	Phe	Glu	Glu	Glu	Gly	Glu	Asp	Leu	His	Phe	Pro	Ala	
				200					205					210	
Asn	Glu	Lys	Lys	Gly	Ile	Glu	Gln	Asn	Glu	Gln	Trp	Val	Val	Pro	
				215					220					225	
Gln	Val	Lys	Val	Glu	Lys	Thr	Arg	His	Ala	Arg	Gln	Ala	Ser	Glu	
				230					235					240	
Glu	Glu	Leu	Pro	Ile	Asn	Asp	Tyr	Thr	Glu	Asn	Gly	Ile	Glu	Phe	
				245					250					255	
Asp	Pro	Met	Leu	Asp	Glu	Arg	Gly	Tyr	Cys	Cys	Ile	Tyr	Cys	Arg	
				260					265					270	
Arg	Gly	Asn	Arg	Tyr	Cys	Arg	Arg	Val	Cys	Glu	Pro	Leu	Leu	Gly	
				275					280					285	
Tyr	Tyr	Pro	Tyr	Pro	Tyr	Cys	Tyr	Gln	Gly	Gly	Arg	Val	Ile	Cys	
				290					295					300	
Arg	Val	Ile	Met	Pro	Cys	Asn	Trp	Trp	Val	Ala	Arg	Met	Leu	Gly	
				305					310					315	

Arg Val

<210> 117

<211> 2121

<212> DNA

<213> Homo Sapien

<400> 117

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 cacatgccaa gtggtggcgt tcctcctgtc catcctgggg ctggccggct 150  
 gcacgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac 200  
 aaccccgta cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt 250  
 gaggcagagt tcaggcttca ccgaatgcag gccctatttc accatcctgg 300  
 gacttccagc catgctgcag gcagtgcgag ccctgatgat cgtaggcatc 350  
 gtctgggtg ccattggcct cctggatatcc atctttgccc tgaaatgcat 400  
 ccgcattggc agcatggagg actctgccaa agccaacatg aactgacct 450  
 ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct 500  
 gtgtttgcca acatgctggt gactaacttc tggatgtcca cagctaacat 550  
 gtacaccggc atgggtggga tgggtgcagac tgttcagacc aggtacacat 600  
 ttggtgcggc tctgttcgtg ggctgggtcg ctggaggcct cacactaatt 650  
 gggggtgtga tgatgtgcat cgcctgccg ggctggcac cagaagaaac 700  
 caactacaaa gccgtttctt atcatgcctc aggccacagt gttgcctaca 750  
 agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac 800  
 aagaagatat acgatggagg tgcccgca ca gaggacgagg tacaatctta 850  
 tccttccaag cacgactatg tgtaatgctc taagacctct cagcacgggc 900  
 ggaagaaact ccgggagagc tcacccaaaa aacaaggaga tcccatctag 950  
 atttcttctt gcttttgact cacagctgga agttagaaaa gcctcgattt 1000  
 catctttgga gaggccaaat ggtcttagcc tcagtctctg tctctaaata 1050  
 ttccaccata aaacagctga gttatttatg aattagaggc tatagctcac 1100  
 attttcaatc ctctatttct ttttttaaataa ataactttct actctgatga 1150  
 gagaatgtgg ttttaatctc tctctcacat tttgatgatt tagacagact 1200  
 cccctcttc ctctagtca ataaacccat tgatgatcta tttccagct 1250  
 tatccccaag aaaacttttg aaaggaaaga gtagaccaa agatgttatt 1300  
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 cacttactga agaagaagca ataagagaaa gatatttgta atctctccag 1400  
 cccatgatct cgggttttctt aactgtgat cttaaaagtt accaaaccaa 1450

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 tcttattaca gcaacacccat tctaggaggtt tcttgagctc tccactggag 1550  
 tctcttttct gtcgcggggtc agaaattgtc cctagatgaa tgagaaaatt 1600  
 atttttttta atttaagtcc taaatatagt taaaataaat aatgttttag 1650  
 taaaatgata cactatctct gtgaaatagc ctcaccccta catgtggata 1700  
 gaaggaaatg aaaaaataat tgctttgaca ttgtctatat ggtactttgt 1750  
 aaagtcatgc ttaagtacaa attccatgaa aagctcacac ctgtaatcct 1800  
 agcacttttg gaggctgagg aggaaggatc acttgagccc agaagttcga 1850  
 gactagcctg ggcaacatgg agaagccctg tctctacaaa atacagagag 1900  
 aaaaaatcag ccagtcatgg tggcatcacac ctgtagtccc agcattccgg 1950  
 gaggctgagg tgggaggatc acttgagccc agggagggttg gggctgcagt 2000  
 gagccatgat cacaccactg cactccagcc aggtgacata gcgagatcct 2050  
 gtctaaaaaa ataaaaaata aataatggaa cacagcaagt cctaggaagt 2100  
 aggttaaaac taattcttta a 2121

<210> 118

<211> 261

<212> PRT

<213> Homo Sapien

<400> 118

Met	Ser	Thr	Thr	Thr	Cys	Gln	Val	Val	Ala	Phe	Leu	Leu	Ser	Ile
1				5					10					15

Leu	Gly	Leu	Ala	Gly	Cys	Ile	Ala	Ala	Thr	Gly	Met	Asp	Met	Trp
				20					25					30

Ser	Thr	Gln	Asp	Leu	Tyr	Asp	Asn	Pro	Val	Thr	Ser	Val	Phe	Gln
				35					40					45

Tyr	Glu	Gly	Leu	Trp	Arg	Ser	Cys	Val	Arg	Gln	Ser	Ser	Gly	Phe
				50					55					60

Thr	Glu	Cys	Arg	Pro	Tyr	Phe	Thr	Ile	Leu	Gly	Leu	Pro	Ala	Met
				65					70					75

Leu	Gln	Ala	Val	Arg	Ala	Leu	Met	Ile	Val	Gly	Ile	Val	Leu	Gly
				80					85					90

Ala	Ile	Gly	Leu	Leu	Val	Ser	Ile	Phe	Ala	Leu	Lys	Cys	Ile	Arg
				95					100					105

Ile	Gly	Ser	Met	Glu	Asp	Ser	Ala	Lys	Ala	Asn	Met	Thr	Leu	Thr
				110					115					120

Ser Gly Ile Met	Phe Ile Val	Ser Gly Leu Cys Ala Ile Ala Gly	
125		130	135
Val Ser Val Phe	Ala Asn Met	Leu Val Thr Asn Phe Trp Met Ser	
140		145	150
Thr Ala Asn Met	Tyr Thr Gly	Met Gly Gly Met Val Gln Thr Val	
155		160	165
Gln Thr Arg Tyr	Thr Phe Gly	Ala Ala Leu Phe Val Gly Trp Val	
170		175	180
Ala Gly Gly Leu	Thr Leu Ile	Gly Gly Val Met Met Cys Ile Ala	
185		190	195
Cys Arg Gly Leu	Ala Pro Glu	Glu Thr Asn Tyr Lys Ala Val Ser	
200		205	210
Tyr His Ala Ser	Gly His Ser	Val Ala Tyr Lys Pro Gly Gly Phe	
215		220	225
Lys Ala Ser Thr	Gly Phe Gly	Ser Asn Thr Lys Asn Lys Lys Ile	
230		235	240
Tyr Asp Gly Gly	Ala Arg Thr	Glu Asp Glu Val Gln Ser Tyr Pro	
245		250	255
Ser Lys His Asp	Tyr Val		
260			

<210> 119  
 <211> 2010  
 <212> DNA  
 <213> Homo Sapien

<400> 119  
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 caacccatgc cttagaaatc gctgggctgt ttcttggtgg tgttggaatg 150  
 gtgggcacag tggctgtcac tgatcatgct cagtggagag tgcggcctt 200  
 cattgaaaac aacatcgtgg tttttgaaaa cttctgggaa ggactgtgga 250  
 tgaattgcgt gaggcaggct aacatcagga tgcagtgcaa aatctatgat 300  
 tccctgctgg ctctttctcc ggacctacag gcagccagag gactgatgtg 350  
 tgctgcttcc gtgatgtcct tcttggtctt catgatggcc atccttggca 400  
 tgaaatgcac caggtgcacg ggggacaatg agaagtgaa ggctcacatt 450  
 ctgctgacgg ctggaatcat cttcatcatc acgggcatgg tgggtgctcat 500

ccctgtgagc tggggttgcca atgccatcat cagagatttc tataactcaa 550  
 tagtgaatgt tgcccaaaaa cgtgagcttg gagaagctct ctacttagga 600  
 tggaccacgg cactggtgct gattgttgga ggagctctgt tctgctgcgt 650  
 tttttgttgc aacgaaaaga gcagtagcta cagatactcg ataccttccc 700  
 atcgcacaaac ccaaaaaagt tatcacaccg gaaagaagtc accgagcgtc 750  
 tactccagaa gtcagtatgt gtagtttgtgt atgttttttt aactttacta 800  
 taaagccatg caaatgacaa aaatctatat tacttttctca aaatggaccc 850  
 caaagaaact ttgatttact gttcttaact gcctaattctt aattacagga 900  
 actgtgcac cagctatttat gattctataa gctatttcag cagaatgaga 950  
 tattaaaccc aatgctttga ttgttctaga aagtatagta atttgttttc 1000  
 taagggtggtt caagcatcta ctcttttttat catttacttc aaaatgacat 1050  
 tgctaaagac tgcattatct tactactgta atttctccac gacatagcat 1100  
 tatgtacata gatgagtgtg acatttatat ctcacataga gacatgctta 1150  
 tatggtttta tttaaaatga aatgccagtc cattacactg aataaataga 1200  
 actcaactat tgctttttcag ggaaatcatg gatagggttg aagaagggtta 1250  
 ctattaattg tttaaaaaca gcttagggat taatgtcctc catttataat 1300  
 gaagattaaa atgaaggctt taatcagcat tgtaaaggaa attgaatggc 1350  
 tttctgatat gctgtttttt agcctaggag ttagaaatcc taacttcttt 1400  
 atcctcttct cccagaggct ttttttttct tgtgtattaa attaacattt 1450  
 ttaaaacgca gatattttgt caaggggctt tgcattcaaa ctgcttttcc 1500  
 agggctatac tcagaagaaa gataaaagtg tgatctaaga aaaagtgatg 1550  
 gttttaggaa agtgaaaata tttttgtttt tgtatttgaa gaagaatgat 1600  
 gcattttgac aagaaatcat atatgtatgg atatatttta ataagtattt 1650  
 gagtacagac tttgagggtt catcaatata aataaaagag cagaaaaata 1700  
 tgtcttggtt ttcatttgct taccaaaaaa acaacaacaa aaaaagttgt 1750  
 cctttgagaa cttcacctgc tcctatgtgg gtacctgagt caaaattgtc 1800  
 atttttgttc tgtgaaaaat aaatttcctt cttgtacat ttctgtttag 1850  
 ttttactaaa atctgtaaat actgtatttt tctgtttatt ccaaatttga 1900  
 tgaaactgac aatccaattt gaaagtttgt gtcgacgtct gtctagctta 1950

aatgaatgtg ttctatttgc tttataacatt tatattaata aattgtacat 2000

ttttctaatt 2010

<210> 120

<211> 225

<212> PRT

<213> Homo Sapien

<400> 120

Met	Ala	Thr	His	Ala	Leu	Glu	Ile	Ala	Gly	Leu	Phe	Leu	Gly	Gly
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Val	Gly	Met	Val	Gly	Thr	Val	Ala	Val	Thr	Val	Met	Pro	Gln	Trp
				20					25					30

Arg	Val	Ser	Ala	Phe	Ile	Glu	Asn	Asn	Ile	Val	Val	Phe	Glu	Asn
				35					40					45

Phe	Trp	Glu	Gly	Leu	Trp	Met	Asn	Cys	Val	Arg	Gln	Ala	Asn	Ile
				50					55					60

Arg	Met	Gln	Cys	Lys	Ile	Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Ser	Pro
				65					70					75

Asp	Leu	Gln	Ala	Ala	Arg	Gly	Leu	Met	Cys	Ala	Ala	Ser	Val	Met
				80					85					90

Ser	Phe	Leu	Ala	Phe	Met	Met	Ala	Ile	Leu	Gly	Met	Lys	Cys	Thr
				95					100					105

Arg	Cys	Thr	Gly	Asp	Asn	Glu	Lys	Val	Lys	Ala	His	Ile	Leu	Leu
				110					115					120

Thr	Ala	Gly	Ile	Ile	Phe	Ile	Ile	Thr	Gly	Met	Val	Val	Leu	Ile
				125					130					135

Pro	Val	Ser	Trp	Val	Ala	Asn	Ala	Ile	Ile	Arg	Asp	Phe	Tyr	Asn
				140					145					150

Ser	Ile	Val	Asn	Val	Ala	Gln	Lys	Arg	Glu	Leu	Gly	Glu	Ala	Leu
				155					160					165

Tyr	Leu	Gly	Trp	Thr	Thr	Ala	Leu	Val	Leu	Ile	Val	Gly	Gly	Ala
				170					175					180

Leu	Phe	Cys	Cys	Val	Phe	Cys	Cys	Asn	Glu	Lys	Ser	Ser	Ser	Tyr
				185					190					195

Arg	Tyr	Ser	Ile	Pro	Ser	His	Arg	Thr	Thr	Gln	Lys	Ser	Tyr	His
				200					205					210

Thr	Gly	Lys	Lys	Ser	Pro	Ser	Val	Tyr	Ser	Arg	Ser	Gln	Tyr	Val
				215					220					225

<210> 121

<211> 1257  
<212> DNA  
<213> Homo Sapien

<400> 121  
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cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100  
ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150  
gccccgccgc ctccccgcag cggctccgcg gcctcctgct gctcctgctg 200  
ctgcagctgc ccgcgccgtc gagcgctctt gagatcccca aggggaagca 250  
aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300  
gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350  
aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400  
agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacaccca 450  
actacaagca gtgttcattg agttcattga attatggcat agatcttggg 500  
aaaattgcgg agtgtacatt tacaagatg cgttcaaata gtgctctaag 550  
agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600  
agcgttggtt tttcacattc aatggagctg aatgttcagg acctcttccc 650  
attgaagcta taatttattt ggaccaagga agccctgaaa tgaattcaac 700  
aattaatatt catcgcaatt cttctgtgga aggactttgt gaaggaattg 750  
gtgctggatt agtggatggt gctatctggg ttggcacttg ttcagattac 800  
ccaaaaggag atgcttctac tggatggaat tcagtctctc gcatcattat 850  
tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900  
ttattatgcc ttggaatggt tcaactaaat gacattttta ataagtttat 950  
gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagt 1000  
tgatttcaca ctgtttttta atctagcatt attcattttg cttcaatcaa 1050  
aagtggtttc aatatttttt ttagttgggt agaatacttt cttcatagtc 1100  
acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150  
ctcttagtat agcattttta aaaaaatata aaagctacca atctttgtac 1200  
aatttgtaaa tgttaagaat tttttttata tctgttaaata aaaaattatt 1250  
tccaaca 1257

<210> 122

<211> 243  
 <212> PRT  
 <213> Homo Sapien

<400> 122

Met	Arg	Pro	Gln	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Arg	Leu	Arg	Gly	1	5	10	15
Leu	Leu	Leu	Leu	Leu	Leu	Leu	Gln	Leu	Pro	Ala	Pro	Ser	Ser	Ala	20	25	30	
Ser	Glu	Ile	Pro	Lys	Gly	Lys	Gln	Lys	Ala	Gln	Leu	Arg	Gln	Arg	35	40	45	
Glu	Val	Val	Asp	Leu	Tyr	Asn	Gly	Met	Cys	Leu	Gln	Gly	Pro	Ala	50	55	60	
Gly	Val	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Asn	Val	Ile	Pro	65	70	75	
Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys	80	85	90	
Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn	95	100	105	
Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu	110	115	120	
Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser	125	130	135	
Ala	Leu	Arg	Val	Leu	Phe	Ser	Gly	Ser	Leu	Arg	Leu	Lys	Cys	Arg	140	145	150	
Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr	Phe	Asn	Gly	Ala	Glu	155	160	165	
Cys	Ser	Gly	Pro	Leu	Pro	Ile	Glu	Ala	Ile	Ile	Tyr	Leu	Asp	Gln	170	175	180	
Gly	Ser	Pro	Glu	Met	Asn	Ser	Thr	Ile	Asn	Ile	His	Arg	Thr	Ser	185	190	195	
Ser	Val	Glu	Gly	Leu	Cys	Glu	Gly	Ile	Gly	Ala	Gly	Leu	Val	Asp	200	205	210	
Val	Ala	Ile	Trp	Val	Gly	Thr	Cys	Ser	Asp	Tyr	Pro	Lys	Gly	Asp	215	220	225	
Ala	Ser	Thr	Gly	Trp	Asn	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu	230	235	240	
Leu	Pro	Lys																

<210> 123



<211> 2379  
<212> DNA  
<213> Homo Sapien

<400> 123  
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agctctgtgg ctgaactggg tgctcatcac gggaactgct gggctatgga 100  
atacagatgt ggcagctcag gtagccccaa attgcctgga agaatacatc 150  
atgtttttcg ataagaagaa attgtaggat ccagtttttt ttttaaccgc 200  
ccccccccca ccccccaaaa aaactgtaaa gatgcaaaaa cgtaatatcc 250  
atgaagatcc tattacctag gaagattttg atgttttgct gcgaatgcgg 300  
tgttgggatt tatttgttct tggagtgttc tgcgtggctg gcaaagaata 350  
atgttccaaa atcgggtccat ctccaagggt gtccaatttt tcttcctggg 400  
tgtcagcgag ccctgactca ctacagtgcg gctgacaggg gctgtcatgc 450  
aactggcccc taagccaaag caaaagacct aaggacgacc tttgaacaat 500  
acaaaggatg ggtttcaatg taattaggct actgagcgga tcagctgtag 550  
cactgggtat agccccact gtcttactga caatgctttc ttctgccgaa 600  
cgaggatgcc ctaagggtg taggtgtgaa ggcaaatgg tatattgtga 650  
atctcagaaa ttacaggaga taccctcaag tatactctgct gggtgcttag 700  
gtttgtccct tcgtataaac agccttcaaa aacttaagta taatcaattt 750  
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caatattgac gaaaatgctt ttaatggaat acgcagactc aaagagctga 850  
ttcttagttc caatagaatc tcctattttc ttaacaatac cttcagacct 900  
gtgacaaatt tacggaaactt ggatctgtcc tataatcagc tgcattctct 950  
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aacctggaac ttttgacact gggatataac cggatccgaa gtttagccag 1100  
gaatgtcttt gctggcatga tcagactcaa agaacttcac ctggagcaca 1150  
atcaattttc caagctcaac ctggcccttt ttccaagggt ggtcagcctt 1200  
cagaaccttt acttgcatg gaataaaatc agtgtcatag gacagaccat 1250  
gtcctggacc tggagctcct tacaaaggct tgatttatca ggcaatgaga 1300  
tcgaagcttt cagtggaccc agtgttttcc agtgtgtccc gaatctgcag 1350

cgctcaacc tggattccaa caagctcaca tttattgggc aagagatttt 1400  
 ggattcttgg atatccctca atgacatcag tcttgctggg aatatatggg 1450  
 aatgcagcag aaatatttgc tcccttgtaa actggctgaa aagttttaaa 1500  
 ggtctaaggg agaatacaat tatctgtgcc agtcccaaag agctgcaagg 1550  
 agtaaagtgt atcgatgcag tgaagaacta cagcatctgt ggcaaaagta 1600  
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 gattataaac ccaccaacac ggagaccagc gagatgctgc tgaatgggac 2000  
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 ccattgtgat aaaaagagct cttaaaagct gggaaataag tggtgcttta 2100  
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 tcataatact ggtcattttc ctctcataca taatcaaccc attgaaattt 2250  
 aaataccaca atcaatgtga agcttgaact ccggtttaat ataataccta 2300  
 ttgtataaga ccctttactg attccattaa tgtcgcatth gttttaagat 2350  
 aaaacttctt tcataggtaa aaaaaaaaaa 2379

<210> 124

<211> 513

<212> PRT

<213> Homo Sapien

<400> 124

Met	Gly	Phe	Asn	Val	Ile	Arg	Leu	Leu	Ser	Gly	Ser	Ala	Val	Ala
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Leu	Val	Ile	Ala	Pro	Thr	Val	Leu	Leu	Thr	Met	Leu	Ser	Ser	Ala
				20				25					30	
Glu	Arg	Gly	Cys	Pro	Lys	Gly	Cys	Arg	Cys	Glu	Gly	Lys	Met	Val
				35				40					45	

Tyr	Cys	Glu	Ser	Gln	Lys	Leu	Gln	Glu	Ile	Pro	Ser	Ser	Ile	Ser	
				50					55					60	
Ala	Gly	Cys	Leu	Gly	Leu	Ser	Leu	Arg	Tyr	Asn	Ser	Leu	Gln	Lys	
				65					70					75	
Leu	Lys	Tyr	Asn	Gln	Phe	Lys	Gly	Leu	Asn	Gln	Leu	Thr	Trp	Leu	
				80					85					90	
Tyr	Leu	Asp	His	Asn	His	Ile	Ser	Asn	Ile	Asp	Glu	Asn	Ala	Phe	
				95					100					105	
Asn	Gly	Ile	Arg	Arg	Leu	Lys	Glu	Leu	Ile	Leu	Ser	Ser	Asn	Arg	
				110					115					120	
Ile	Ser	Tyr	Phe	Leu	Asn	Asn	Thr	Phe	Arg	Pro	Val	Thr	Asn	Leu	
				125					130					135	
Arg	Asn	Leu	Asp	Leu	Ser	Tyr	Asn	Gln	Leu	His	Ser	Leu	Gly	Ser	
				140					145					150	
Glu	Gln	Phe	Arg	Gly	Leu	Arg	Lys	Leu	Leu	Ser	Leu	His	Leu	Arg	
				155					160					165	
Ser	Asn	Ser	Leu	Arg	Thr	Ile	Pro	Val	Arg	Ile	Phe	Gln	Asp	Cys	
				170					175					180	
Arg	Asn	Leu	Glu	Leu	Leu	Asp	Leu	Gly	Tyr	Asn	Arg	Ile	Arg	Ser	
				185					190					195	
Leu	Ala	Arg	Asn	Val	Phe	Ala	Gly	Met	Ile	Arg	Leu	Lys	Glu	Leu	
				200					205					210	
His	Leu	Glu	His	Asn	Gln	Phe	Ser	Lys	Leu	Asn	Leu	Ala	Leu	Phe	
				215					220					225	
Pro	Arg	Leu	Val	Ser	Leu	Gln	Asn	Leu	Tyr	Leu	Gln	Trp	Asn	Lys	
				230					235					240	
Ile	Ser	Val	Ile	Gly	Gln	Thr	Met	Ser	Trp	Thr	Trp	Ser	Ser	Leu	
				245					250					255	
Gln	Arg	Leu	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Ala	Phe	Ser	Gly	
				260					265					270	
Pro	Ser	Val	Phe	Gln	Cys	Val	Pro	Asn	Leu	Gln	Arg	Leu	Asn	Leu	
				275					280					285	
Asp	Ser	Asn	Lys	Leu	Thr	Phe	Ile	Gly	Gln	Glu	Ile	Leu	Asp	Ser	
				290					295					300	
Trp	Ile	Ser	Leu	Asn	Asp	Ile	Ser	Leu	Ala	Gly	Asn	Ile	Trp	Glu	
				305					310					315	
Cys	Ser	Arg	Asn	Ile	Cys	Ser	Leu	Val	Asn	Trp	Leu	Lys	Ser	Phe	
				320					325					330	

Lys Gly Leu Arg Glu Asn Thr	Ile Ile Cys Ala Ser Pro Lys Glu	335	340	345
Leu Gln Gly Val Asn Val Ile Asp Ala Val Lys Asn Tyr Ser Ile		350	355	360
Cys Gly Lys Ser Thr Thr Glu Arg Phe Asp Leu Ala Arg Ala Leu		365	370	375
Pro Lys Pro Thr Phe Lys Pro Lys Leu Pro Arg Pro Lys His Glu		380	385	390
Ser Lys Pro Pro Leu Pro Pro Thr Val Gly Ala Thr Glu Pro Gly		395	400	405
Pro Glu Thr Asp Ala Asp Ala Glu His Ile Ser Phe His Lys Ile		410	415	420
Ile Ala Gly Ser Val Ala Leu Phe Leu Ser Val Leu Val Ile Leu		425	430	435
Leu Val Ile Tyr Val Ser Trp Lys Arg Tyr Pro Ala Ser Met Lys		440	445	450
Gln Leu Gln Gln Arg Ser Leu Met Arg Arg His Arg Lys Lys Lys		455	460	465
Arg Gln Ser Leu Lys Gln Met Thr Pro Ser Thr Gln Glu Phe Tyr		470	475	480
Val Asp Tyr Lys Pro Thr Asn Thr Glu Thr Ser Glu Met Leu Leu		485	490	495
Asn Gly Thr Gly Pro Cys Thr Tyr Asn Lys Ser Gly Ser Arg Glu		500	505	510
Cys Glu Val				

<210> 125  
 <211> 998  
 <212> DNA  
 <213> Homo Sapien

<400> 125  
 ccgttatcgt cttgcgctac tgctgaatgt ccgtcccga ggaggaggag 50  
 aggcttttgc cgctgacca gagatggccc cgagcgagca aattcctact 100  
 gtccggctgc gcggtaccg tggccgagct agcaaccttt cccctggatc 150  
 tcacaaaaac tcgactccaa atgcaaggag aagcagctct tgctcggttg 200  
 ggagacggtg caagagaatc tgccccctat aggggaatgg tgcgcacagc 250  
 cctagggatc attgaagagg aaggctttct aaagctttgg caaggagtga 300

caccgcgcac ttacagacac gtagtggtatt ctggagggtcg aatgggcaca 350  
 tatgaacatc tccgagaggt tgtgtttggc aaaagtgaag atgagcatta 400  
 tcccccttgg aaatcagtc tggaggggat gatggctggg gttattggcc 450  
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 ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca 550  
 tgcatttgca aaaatcttag ctgaaggagg aatacgaggg ctttgggcag 600  
 gctgggtacc caatatacaa agagcagcac tggatgaat gggagattta 650  
 accacttatg atacagtga acactacttg gtattgaata caccacttga 700  
 ggacaatatc atgactcacg gtttatcaag tttatgttct ggactggtag 750  
 cttctattct gggaacacca gccgatgtca tcaaaagcag aataatgaat 800  
 caaccacgag ataaacaagg aaggggactt ttgtataaat catcgactga 850  
 ctgcttgatt caggctgttc aaggtgaagg attcatgagt ctatataaag 900  
 gctttttacc atcttggtg agaattgaccc cttggtcaat ggtgttctgg 950  
 cttacttatg aaaaaatcag agagatgagt ggagtcagtc cattttaa 998

<210> 126

<211> 323

<212> PRT

<213> Homo Sapien

<400> 126

Met	Ser	Val	Pro	Glu	Glu	Glu	Glu	Arg	Leu	Leu	Pro	Leu	Thr	Gln
1				5					10					15

Arg	Trp	Pro	Arg	Ala	Ser	Lys	Phe	Leu	Leu	Ser	Gly	Cys	Ala	Ala
				20					25					30

Thr	Val	Ala	Glu	Leu	Ala	Thr	Phe	Pro	Leu	Asp	Leu	Thr	Lys	Thr
				35					40					45

Arg	Leu	Gln	Met	Gln	Gly	Glu	Ala	Ala	Leu	Ala	Arg	Leu	Gly	Asp
				50					55					60

Gly	Ala	Arg	Glu	Ser	Ala	Pro	Tyr	Arg	Gly	Met	Val	Arg	Thr	Ala
				65					70					75

Leu	Gly	Ile	Ile	Glu	Glu	Glu	Gly	Phe	Leu	Lys	Leu	Trp	Gln	Gly
				80					85					90

Val	Thr	Pro	Ala	Ile	Tyr	Arg	His	Val	Val	Tyr	Ser	Gly	Gly	Arg
				95					100					105

Met	Val	Thr	Tyr	Glu	His	Leu	Arg	Glu	Val	Val	Phe	Gly	Lys	Ser
				110					115					120

Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly Met		
	125	130 135
Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu		
	140	145 150
Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly		
	155	160 165
Lys Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile		
	170	175 180
Leu Ala Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val Pro		
	185	190 195
Asn Ile Gln Arg Ala Ala Leu Val Asn Met Gly Asp Leu Thr Thr		
	200	205 210
Tyr Asp Thr Val Lys His Tyr Leu Val Leu Asn Thr Pro Leu Glu		
	215	220 225
Asp Asn Ile Met Thr His Gly Leu Ser Ser Leu Cys Ser Gly Leu		
	230	235 240
Val Ala Ser Ile Leu Gly Thr Pro Ala Asp Val Ile Lys Ser Arg		
	245	250 255
Ile Met Asn Gln Pro Arg Asp Lys Gln Gly Arg Gly Leu Leu Tyr		
	260	265 270
Lys Ser Ser Thr Asp Cys Leu Ile Gln Ala Val Gln Gly Glu Gly		
	275	280 285
Phe Met Ser Leu Tyr Lys Gly Phe Leu Pro Ser Trp Leu Arg Met		
	290	295 300
Thr Pro Trp Ser Met Val Phe Trp Leu Thr Tyr Glu Lys Ile Arg		
	305	310 315
Glu Met Ser Gly Val Ser Pro Phe		
	320	

<210> 127  
 <211> 1505  
 <212> DNA  
 <213> Homo Sapien

<400> 127  
 cgcgatcg acccaagcag gtcggcggcg gcggcaggag agcggccggg 50  
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 ggcgtggggcc catggccagg cccggcatgg agcgggtggcg cgaccggctg 150  
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<210> 128  
 <211> 260  
 <212> PRT  
 <213> Homo Sapien

<400> 128

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Pro	Gly	Thr	Leu	Ile	Pro	Tyr	Arg	Cys	Asp	Leu	Ser	Asn	Glu	Glu
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Asp	Ile	Leu	Ser	Met	Phe	Ser	Ala	Ile	Arg	Ser	Gln	His	Ser	Gly
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Val	Asp	Ile	Cys	Ile	Asn	Asn	Ala	Gly	Leu	Ala	Arg	Pro	Asp	Thr
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Leu	Leu	Ser	Gly	Ser	Thr	Ser	Gly	Trp	Lys	Asp	Met	Phe	Asn	Val
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Asn	Val	Leu	Ala	Leu	Ser	Ile	Cys	Thr	Arg	Glu	Ala	Tyr	Gln	Ser
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Ser	Met	Ser	Gly	His	Arg	Val	Leu	Pro	Leu	Ser	Val	Thr	His	Phe
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Tyr	Ser	Ala	Thr	Lys	Tyr	Ala	Val	Thr	Ala	Leu	Thr	Glu	Gly	Leu
				170					175					180
Arg	Gln	Glu	Leu	Arg	Glu	Ala	Gln	Thr	His	Ile	Arg	Ala	Thr	Cys
				185					190					195
Ile	Ser	Pro	Gly	Val	Val	Glu	Thr	Gln	Phe	Ala	Phe	Lys	Leu	His
				200					205					210
Asp	Lys	Asp	Pro	Glu	Lys	Ala	Ala	Ala	Thr	Tyr	Glu	Gln	Met	Lys
				215					220					225
Cys	Leu	Lys	Pro	Glu	Asp	Val	Ala	Glu	Ala	Val	Ile	Tyr	Val	Leu
				230					235					240
Ser	Thr	Pro	Ala	His	Ile	Gln	Ile	Gly	Asp	Ile	Gln	Met	Arg	Pro
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<210> 129

<211> 1177

<212> DNA



<213> Homo Sapien

<400> 129

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<210> 130

<211> 111

<212> PRT

<213> Homo Sapien

<400> 130

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Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg	35	40	45
Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val	50	55	60
Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro	65	70	75
Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser	80	85	90
Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val	95	100	105
Ala Val Glu Cys Leu Lys	110		

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<210> 132

<211> 649  
 <212> PRT  
 <213> Homo Sapien

<400> 132

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Cys	Pro	Ser	Val	Cys	Arg	Cys	Asp	Ala	Gly	Phe	Ile	Tyr	Cys	Asn
				35					40					45
Asp	Arg	Phe	Leu	Thr	Ser	Ile	Pro	Thr	Gly	Ile	Pro	Glu	Asp	Ala
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Thr	Thr	Leu	Tyr	Leu	Gln	Asn	Asn	Gln	Ile	Asn	Asn	Ala	Gly	Ile
				65					70					75
Pro	Ser	Asp	Leu	Lys	Asn	Leu	Leu	Lys	Val	Glu	Arg	Ile	Tyr	Leu
				80					85					90
Tyr	His	Asn	Ser	Leu	Asp	Glu	Phe	Pro	Thr	Asn	Leu	Pro	Lys	Tyr
				95					100					105
Val	Lys	Glu	Leu	His	Leu	Gln	Glu	Asn	Asn	Ile	Arg	Thr	Ile	Thr
				110					115					120
Tyr	Asp	Ser	Leu	Ser	Lys	Ile	Pro	Tyr	Leu	Glu	Glu	Leu	His	Leu
				125					130					135
Asp	Asp	Asn	Ser	Val	Ser	Ala	Val	Ser	Ile	Glu	Glu	Gly	Ala	Phe
				140					145					150
Arg	Asp	Ser	Asn	Tyr	Leu	Arg	Leu	Leu	Phe	Leu	Ser	Arg	Asn	His
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Gln	Gly	Leu	Thr	Ser	Leu	Lys	Arg	Leu	Val	Leu	Asp	Gly	Asn	Leu
				200					205					210
Leu	Asn	Asn	His	Gly	Leu	Gly	Asp	Lys	Val	Phe	Phe	Asn	Leu	Val
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Asn	Leu	Thr	Glu	Leu	Ser	Leu	Val	Arg	Asn	Ser	Leu	Thr	Ala	Ala
				230					235					240
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Leu	Pro	Gln	Gly	Ile	Phe	Asp	Asp	Leu	Asp	Asn	Ile	Thr	Gln	Leu
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Ile	Leu	Arg	Asn	Asn	Pro	Trp	Tyr	Cys	Gly	Cys	Lys	Met	Lys	Trp
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Val	Ser	Thr	Ile	Gln	Ile	Thr	Thr	Ala	Ile	Pro	Asn	Thr	Val	Tyr
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Pro	Ala	Gln	Gly	Gln	Trp	Pro	Ala	Pro	Val	Thr	Lys	Gln	Pro	Asp
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Pro	Ser	Arg	Lys	Thr	Ile	Thr	Ile	Thr	Val	Lys	Ser	Val	Thr	Ser
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Asp	Thr	Ile	His	Ile	Ser	Trp	Lys	Leu	Ala	Leu	Pro	Met	Thr	Ala
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Leu	Arg	Leu	Ser	Trp	Leu	Lys	Leu	Gly	His	Ser	Pro	Ala	Phe	Gly
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Ser	Ile	Thr	Glu	Thr	Ile	Val	Thr	Gly	Glu	Arg	Ser	Glu	Tyr	Leu
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Val	Thr	Ala	Leu	Glu	Pro	Asp	Ser	Pro	Tyr	Lys	Val	Cys	Met	Val
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Cys	Ile	Glu	Thr	Glu	Thr	Ala	Pro	Leu	Arg	Met	Tyr	Asn	Pro	Thr
			500						505				510	
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			515						520				525	
Asn	Leu	Pro	Leu	Ala	Ala	Ile	Ile	Gly	Gly	Ala	Val	Ala	Leu	Val
			530						535				540	
Thr	Ile	Ala	Leu	Leu	Ala	Leu	Val	Cys	Trp	Tyr	Val	His	Arg	Asn

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Arg Lys Asp Asp Tyr Ala Glu Ala Gly Thr Lys Lys Asp Asn Ser					
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Ile Leu Glu Ile Arg Glu Thr Ser Phe Gln Met Leu Pro Ile Ser					
	590		595		600
Asn Glu Pro Ile Ser Lys Glu Glu Phe Val Ile His Thr Ile Phe					
	605		610		615
Pro Pro Asn Gly Met Asn Leu Tyr Lys Asn Asn His Ser Glu Ser					
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Ser Ser Asn Arg Ser Tyr Arg Asp Ser Gly Ile Pro Asp Ser Asp					
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His Ser His Ser

<210> 133

<211> 1882

<212> DNA

<213> Homo Sapien

<400> 133

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<210> 134

<211> 440

<212> PRT

<213> Homo Sapien

<400> 134

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				20					25					30

Thr	Ser	Ser	Glu	Gln	Arg	Pro	Ala	Met	Ala	Ser	Leu	Gly	Leu	Leu	35	40	45
Leu	Leu	Leu	Leu	Leu	Thr	Ala	Leu	Pro	Pro	Leu	Trp	Ser	Ser	Ser	50	55	60
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Arg	Leu	Pro	Glu	Ile	Asn	Leu	Asp	Gly	Met	Val	Gly	Val	Arg	Val	95	100	105
Leu	Glu	Glu	Gln	Leu	Lys	Ser	Val	Arg	Glu	Lys	Trp	Ala	Gln	Glu	110	115	120
Pro	Leu	Leu	Gln	Pro	Leu	Ser	Leu	Arg	Val	Gly	Met	Leu	Gly	Glu	125	130	135
Lys	Leu	Glu	Ala	Ala	Ile	Gln	Arg	Ser	Leu	His	Tyr	Leu	Lys	Leu	140	145	150
Ser	Asp	Pro	Lys	Tyr	Leu	Arg	Glu	Phe	Gln	Leu	Thr	Leu	Gln	Pro	155	160	165
Gly	Phe	Trp	Lys	Leu	Pro	His	Ala	Trp	Ile	His	Thr	Asp	Ala	Ser	170	175	180
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Phe	Phe	Leu	Trp	Ala	Arg	Met	Arg	Gly	Cys	Thr	Gln	Gly	Pro	Leu	245	250	255
Gln	Gln	Ser	Gln	Asp	Tyr	Ile	Asn	Leu	Phe	Cys	Ala	Asn	Met	Met	260	265	270
Asp	Leu	Asn	Arg	Arg	Ala	Glu	Ala	Ile	Gly	Tyr	Ala	Tyr	Pro	Thr	275	280	285
Arg	Asp	Ile	Phe	Met	Glu	Asn	Ile	Met	Phe	Cys	Gly	Met	Gly	Gly	290	295	300
Phe	Ser	Asp	Phe	Tyr	Lys	Leu	Arg	Trp	Leu	Glu	Ala	Ile	Leu	Ser	305	310	315



Trp	Gln	Lys	Gln	Gln	Glu	Gly	Cys	Phe	Gly	Glu	Pro	Asp	Ala	Glu
				320					325					330
Asp	Glu	Glu	Leu	Ser	Lys	Ala	Ile	Gln	Tyr	Gln	Gln	His	Phe	Ser
				335					340					345
Arg	Arg	Val	Lys	Arg	Arg	Glu	Lys	Gln	Phe	Pro	Asp	Ser	Arg	Ser
				350					355					360
Val	Ala	Gln	Ala	Gly	Val	Gln	Trp	Arg	Asn	Leu	Gly	Ser	Leu	Gln
				365					370					375
Pro	Leu	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Leu	Ile	Leu	Pro
				380					385					390
Ser	Ser	Trp	Asp	Tyr	Arg	Ser	Val	Pro	Pro	Tyr	Leu	Ala	Asn	Phe
				395					400					405
Tyr	Ile	Phe	Leu	Val	Glu	Thr	Gly	Phe	His	His	Val	Ala	His	Ala
				410					415					420
Gly	Leu	Glu	Leu	Leu	Ile	Ser	Arg	Asp	Pro	Pro	Thr	Ser	Gly	Ser
				425					430					435
Gln	Ser	Val	Gly	Leu										
				440										

<210> 135

<211> 884

<212> DNA

<213> Homo Sapien

<400> 135

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gcccggggct gctgctgagg gatcgggagg gaggggggc ggcattaggag 150

atcgcttcaa gattgagggg cgtgcagttg ttccaggggt gaagcctcag 200

gactggatct cggcggcccg agtgctggta gacggagaag agcacgtcgg 250

tttccttaag acagatggga gttttgtggt tcatgatata ctttctggat 300

cttatgtagt ggaagttgta tctccagctt acagatttga tcccgttcga 350

gtggatatca cttcgaaagg aaaaatgaga gcaagatatg tgaattacat 400

caaaacatca gaggttgtca gactgcccta tcctctcaa atgaaatctt 450

cagggtccacc ttcttacttt attaaaagg aatcgtggg ctggacagac 500

tttctaata acccaatggt tatgatgat gttcttcctt tattgatatt 550

tgtgcttctg cctaaagtgg tcaacacaag tgatcctgac atgagacggg 600

aaatggagca gtcaatgaat atgctgaatt ccaaccatga gttgcctgat 650

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gtttctgagt tcatgacaag actcttctct tcaaaatcat ctggcaaadc 700  
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<210> 136  
<211> 242  
<212> PRT  
<213> Homo Sapien

<400> 136  
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20 25 30  
Ala Glu Gly Ser Gly Gly Ser Gly Val Gly Ile Gly Asp Arg Phe  
35 40 45  
Lys Ile Glu Gly Arg Ala Val Val Pro Gly Val Lys Pro Gln Asp  
50 55 60  
Trp Ile Ser Ala Ala Arg Val Leu Val Asp Gly Glu Glu His Val  
65 70 75  
Gly Phe Leu Lys Thr Asp Gly Ser Phe Val Val His Asp Ile Pro  
80 85 90  
Ser Gly Ser Tyr Val Val Glu Val Val Ser Pro Ala Tyr Arg Phe  
95 100 105  
Asp Pro Val Arg Val Asp Ile Thr Ser Lys Gly Lys Met Arg Ala  
110 115 120  
Arg Tyr Val Asn Tyr Ile Lys Thr Ser Glu Val Val Arg Leu Pro  
125 130 135  
Tyr Pro Leu Gln Met Lys Ser Ser Gly Pro Pro Ser Tyr Phe Ile  
140 145 150  
Lys Arg Glu Ser Trp Gly Trp Thr Asp Phe Leu Met Asn Pro Met  
155 160 165  
Val Met Met Met Val Leu Pro Leu Leu Ile Phe Val Leu Leu Pro  
170 175 180  
Lys Val Val Asn Thr Ser Asp Pro Asp Met Arg Arg Glu Met Glu  
185 190 195  
Gln Ser Met Asn Met Leu Asn Ser Asn His Glu Leu Pro Asp Val

	200		205		210
Ser Glu Phe Met Thr Arg Leu Phe Ser Ser Lys Ser Ser Gly Lys					
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Arg Arg

<210> 137

<211> 1571

<212> DNA

<213> Homo Sapien

<400> 137

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atgtcattct ctatctattc actgcaagtg cctgctgttc caggccttac 200

ctgctgggca ctaacggcgg agccaggatg gggacagaat aaaggagcca 250

cgacctgtgc caccaactcg cactcagact ctgaactcag acctgaaatc 300

ttctcttcac gggaggcttg gcagtttttc ttactcctgt ggtctccaga 350

tttcaggcct aagatgaaag cctctagtct tgccttcagc cttctctctg 400

ctgcgtttta tctcctatgg actccttcca ctggactgaa gacactcaat 450

ttgggaagct gtgtgatcgc cacaaacctt caggaaatac gaaatggatt 500

ttctgagata cggggcagtg tgcaagccaa agatggaaac attgacatca 550

gaatcttaag gaggactgag tctttgcaag acacaaagcc tgcgaatcga 600

tgctgcctcc tgcgccattt gctaagactc tatctggaca gggatattta 650
aaactaccag acccctgacc attatactct ccggaagatc agcagcctcg 700

ccaattcctt tcttaccatc aagaaggacc tccggctctc tcatgcccac 750

atgacatgcc attgtgggga ggaagcaatg aagaaatata gccagattct 800

gagtcacttt gaaaagctgg aacctcaggc agcagttgtg aaggcttttg 850

gggaactaga cattcttctg caatggatgg aggagacaga ataggaggaa 900

agtgatgctg ctgctaagaa tattcgaggt caagagctcc agtcttcaat 950

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cttgtgctgg tcacagtgtg tcttatttat gcattacttg cttccttgca 1050

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 gatgctctgt gagatatttg aaattgaacc aatgactact taggatgggt 1400  
 tgtggaataa gttttgatgt ggaattgcac atctacctta caattactga 1450  
 ccatccccag tagactcccc agtcccataa ttgtgtatct tccagccagg 1500  
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<210> 138

<211> 261

<212> PRT

<213> Homo Sapien

<400> 138

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Ser	Phe	Ser	Ile	Tyr	Ser	Leu	Gln	Val	Pro	Ala	Val	Pro	Gly	Leu
			20					25						30

Thr	Cys	Trp	Ala	Leu	Thr	Ala	Glu	Pro	Gly	Trp	Gly	Gln	Asn	Lys
			35					40						45

Gly	Ala	Thr	Thr	Cys	Ala	Thr	Asn	Ser	His	Ser	Asp	Ser	Glu	Leu
			50					55						60

Arg	Pro	Glu	Ile	Phe	Ser	Ser	Arg	Glu	Ala	Trp	Gln	Phe	Phe	Leu
			65					70						75

Leu	Leu	Trp	Ser	Pro	Asp	Phe	Arg	Pro	Lys	Met	Lys	Ala	Ser	Ser
			80					85						90

Leu	Ala	Phe	Ser	Leu	Leu	Ser	Ala	Ala	Phe	Tyr	Leu	Leu	Trp	Thr
			95					100						105

Pro	Ser	Thr	Gly	Leu	Lys	Thr	Leu	Asn	Leu	Gly	Ser	Cys	Val	Ile
			110					115						120

Ala	Thr	Asn	Leu	Gln	Glu	Ile	Arg	Asn	Gly	Phe	Ser	Glu	Ile	Arg
			125					130						135

Gly	Ser	Val	Gln	Ala	Lys	Asp	Gly	Asn	Ile	Asp	Ile	Arg	Ile	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

	140		145		150
Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys					
	155		160		165
Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe					
	170		175		180
Lys Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser					
	185		190		195
Ser Leu Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu					
	200		205		210
Ser His Ala His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys					
	215		220		225
Lys Tyr Ser Gln Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln					
	230		235		240
Ala Ala Val Val Lys Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln					
	245		250		255
Trp Met Glu Glu Thr Glu					
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<210> 139  
 <211> 2395  
 <212> DNA  
 <213> Homo Sapien

<400> 139  
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 tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150  
 cggggattct tcccggctcc cgttcggttc tctgccagag cggaacacgg 200  
 agcggagccc ccagcgcgcc aaccctcggc tggagccagt tctaactgga 250  
 ccacgctgcc accacctctc ttcagtaaa ttgttattgt tctgatagat 300  
 gccttgagag atgattttgt gtttgggtca aagggtgtga aatttatgcc 350  
 ctacacaact taccttgtgg aaaaaggagc atctcacagt tttgtggctg 400  
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 <211> 310  
 <212> PRT  
 <213> Homo Sapien

<400> 140  
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 35 40 45  
 Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu  
 50 55 60  
 Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala  
 65 70 75  
 Leu Arg Asp Asp Phe Val Phe Gly Ser Lys Gly Val Lys Phe Met  
 80 85 90  
 Pro Tyr Thr Thr Tyr Leu Val Glu Lys Gly Ala Ser His Ser Phe  
 95 100 105  
 Val Ala Glu Ala Lys Pro Pro Thr Val Thr Met Pro Arg Ile Lys  
 110 115 120  
 Ala Leu Met Thr Gly Ser Leu Pro Gly Phe Val Asp Val Ile Arg  
 125 130 135  
 Asn Leu Asn Ser Pro Ala Leu Leu Glu Asp Ser Val Ile Arg Gln  
 140 145 150  
 Ala Lys Ala Ala Gly Lys Arg Ile Val Phe Tyr Gly Asp Glu Thr  
 155 160 165  
 Trp Val Lys Leu Phe Pro Lys His Phe Val Glu Tyr Asp Gly Thr  
 170 175 180  
 Thr Ser Phe Phe Val Ser Asp Tyr Thr Glu Val Asp Asn Asn Val

185							190							195						
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile						
				200					205				210							
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser						
				215					220				225							
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp						
				230					235				240							
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg						
				245					250				255							
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly						
				260					265				270							
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val						
				275					280				285							
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro						
				290					295				300							
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln											
				305					310											

<210> 141  
 <211> 754  
 <212> DNA  
 <213> Homo Sapien

<400> 141  
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 cagcacctta agaccactca caccttcaga gtgaagaact taaacccgaa 200  
 gaaattcagc attcatgacc aggatcacia agtactggtc ctggactctg 250  
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 aagctggctg cccaaaagga atcagcacgc cggcccttca tcttttatag 500  
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 aaatttgaga acaggaaaca cattgaattt tcatttcaac cagtttgcaa 650



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cact 754

<210> 142

<211> 193

<212> PRT

<213> Homo Sapien

<400> 142

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Cys	Gln	His	Leu	Lys	Thr	Thr	His	Thr	Phe	Arg	Val	Lys	Asn	Leu
				20					25					30

Asn	Pro	Lys	Lys	Phe	Ser	Ile	His	Asp	Gln	Asp	His	Lys	Val	Leu
				35					40					45

Val	Leu	Asp	Ser	Gly	Asn	Leu	Ile	Ala	Val	Pro	Asp	Lys	Asn	Tyr
				50					55					60

Ile	Arg	Pro	Glu	Ile	Phe	Phe	Ala	Leu	Ala	Ser	Ser	Leu	Ser	Ser
				65					70					75

Ala	Ser	Ala	Glu	Lys	Gly	Ser	Pro	Ile	Leu	Leu	Gly	Val	Ser	Lys
				80					85					90

Gly	Glu	Phe	Cys	Leu	Tyr	Cys	Asp	Lys	Asp	Lys	Gly	Gln	Ser	His
				95					100					105

Pro	Ser	Leu	Gln	Leu	Lys	Lys	Glu	Lys	Leu	Met	Lys	Leu	Ala	Ala
				110					115					120

Gln	Lys	Glu	Ser	Ala	Arg	Arg	Pro	Phe	Ile	Phe	Tyr	Arg	Ala	Gln
				125					130					135

Val	Gly	Ser	Trp	Asn	Met	Leu	Glu	Ser	Ala	Ala	His	Pro	Gly	Trp
				140					145					150

Phe	Ile	Cys	Thr	Ser	Cys	Asn	Cys	Asn	Glu	Pro	Val	Gly	Val	Thr
				155					160					165

Asp	Lys	Phe	Glu	Asn	Arg	Lys	His	Ile	Glu	Phe	Ser	Phe	Gln	Pro
				170					175					180

Val	Cys	Lys	Ala	Glu	Met	Ser	Pro	Ser	Glu	Val	Ser	Asp
				185					190			

<210> 143

<211> 961

<212> DNA

<213> Homo Sapien

<400> 143

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 ctgttgccag tgtggggtga gacaagtttg tcccacaggg ctgtctgagc 150  
 agataagatt aagggtggg tctgtgtca attaactcct gtgggcacgg 200  
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<210> 144  
 <211> 147  
 <212> PRT  
 <213> Homo Sapien

<400> 144  
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 Leu Leu Leu Leu Gly Ser Gln Ile Leu Leu Ile Tyr Ala Trp His  
 20 25 30  
 Phe His Glu Gln Arg Asp Cys Asp Glu His Asn Val Met Ala Arg  
 35 40 45  
 Tyr Leu Pro Ala Thr Val Glu Phe Ala Val His Thr Phe Asn Gln  
 50 55 60

Gln	Ser	Lys	Asp	Tyr	Tyr	Ala	Tyr	Arg	Leu	Gly	His	Ile	Leu	Asn	
				65					70					75	
Ser	Trp	Lys	Glu	Gln	Val	Glu	Ser	Lys	Thr	Val	Phe	Ser	Met	Glu	
				80					85					90	
Leu	Leu	Leu	Gly	Arg	Thr	Arg	Cys	Gly	Lys	Phe	Glu	Asp	Asp	Ile	
				95					100					105	
Asp	Asn	Cys	His	Phe	Gln	Glu	Ser	Thr	Glu	Leu	Asn	Asn	Thr	Phe	
				110					115					120	
Thr	Cys	Phe	Phe	Thr	Ile	Ser	Thr	Arg	Pro	Trp	Met	Thr	Gln	Phe	
				125					130					135	
Ser	Leu	Leu	Asn	Lys	Thr	Cys	Leu	Glu	Gly	Phe	His				
				140					145						

<210> 145

<211> 1157

<212> DNA

<213> Homo Sapien

<400> 145

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 agagctgtct ggtgatcact ttatgtctca cagggaccca catccaaaca 1100  
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 <211> 176  
 <212> PRT  
 <213> Homo Sapien

<400> 146  
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 His Arg Ile Lys Trp Asn Arg Lys Ala Leu Pro Ser Thr Ala Gln  
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 Ile Thr Glu Ala Gln Val Ala Glu Asn Arg Pro Gly Ala Phe Ile  
 50 55 60  
 Lys Gln Gly Arg Lys Leu Asp Ile Asp Phe Gly Ala Glu Gly Asn  
 65 70 75  
 Arg Tyr Tyr Glu Ala Asn Tyr Trp Gln Phe Pro Asp Gly Ile His  
 80 85 90  
 Tyr Asn Gly Cys Ser Glu Ala Asn Val Thr Lys Glu Ala Phe Val  
 95 100 105  
 Thr Gly Cys Ile Asn Ala Thr Gln Ala Ala Asn Gln Gly Glu Phe  
 110 115 120  
 Gln Lys Pro Asp Asn Lys Leu His Gln Gln Val Leu Trp Arg Leu  
 125 130 135  
 Val Gln Glu Leu Cys Ser Leu Lys His Cys Glu Phe Trp Leu Glu  
 140 145 150  
 Arg Gly Ala Gly Leu Arg Val Thr Met His Gln Pro Val Leu Leu  
 155 160 165  
 Cys Leu Leu Ala Leu Ile Trp Leu Met Val Lys  
 170 175

<210> 147  
 <211> 333  
 <212> DNA  
 <213> Homo Sapien

<400> 147  
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 cagaagctct cttctcttct ggcctcctct ctgtcttctt tccctctttc 150  
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 tttcattttg cttgtcagtg gggtaggtca ctgagtcctta gtttttattt 250  
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 atgagtatat tgcatgatgc tgaggtttgg ggt 333

<210> 148  
 <211> 73  
 <212> PRT  
 <213> Homo Sapien

<400> 148  
 Met Phe Arg Ser Ser Leu Leu Phe Trp Pro Pro Leu Cys Leu Leu  
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 20 25 30  
 Cys Lys Leu Glu Ile Phe His Phe Ala Cys Gln Trp Gly Arg Ser  
 35 40 45  
 Leu Ser Leu Ser Phe Tyr Phe Leu Lys Phe Gln Leu Ser Asp Ser  
 50 55 60  
 Gly Gly Thr Cys Glu Gly Leu Phe Tyr Glu Tyr Ile Ala  
 65 70

<210> 149  
 <211> 1893  
 <212> DNA  
 <213> Homo Sapien

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<210> 150  
 <211> 468  
 <212> PRT  
 <213> Homo Sapien

<400> 150  
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 35 40 45  
 Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro  
 50 55 60  
 Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu  
 65 70 75  
 Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu  
 80 85 90  
 Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val  
 95 100 105  
 Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr  
 110 115 120  
 Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro  
 125 130 135  
 Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp  
 140 145 150  
 Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg  
 155 160 165  
 Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu  
 170 175 180  
 Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu  
 185 190 195  
 Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu  
 200 205 210  
 Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys

215				220				225						
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				230					235					240
Ala	Lys	Gly	Glu	Asn	Asp	Glu	Thr	Val	Ser	Asn	Thr	Leu	Thr	Leu
				245					250					255
Thr	Asn	Gly	Leu	Glu	Arg	Arg	Thr	Lys	Thr	Tyr	Ser	Glu	Asp	Asn
				260					265					270
Phe	Glu	Glu	Leu	Gln	Tyr	Phe	Pro	Asn	Phe	Tyr	Ala	Leu	Leu	Lys
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Ser	Ile	Asp	Ser	Glu	Lys	Glu	Ala	Lys	Glu	Lys	Glu	Thr	Leu	Ile
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Thr	Ile	Met	Lys	Thr	Leu	Ile	Asp	Phe	Val	Lys	Met	Met	Val	Lys
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Tyr	Gly	Thr	Ile	Ser	Pro	Glu	Glu	Gly	Val	Ser	Tyr	Leu	Glu	Asn
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Leu	Asp	Glu	Met	Ile	Ala	Leu	Gln	Thr	Lys	Asn	Lys	Leu	Glu	Lys
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Asn	Ala	Thr	Asp	Asn	Ile	Ser	Lys	Leu	Phe	Pro	Ala	Pro	Ser	Glu
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Lys	Ser	His	Glu	Glu	Thr	Asp	Ser	Thr	Lys	Glu	Glu	Ala	Ala	Lys
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Met	Glu	Lys	Glu	Tyr	Gly	Ser	Leu	Lys	Asp	Ser	Thr	Lys	Asp	Asp
				380					385					390
Asn	Ser	Asn	Pro	Gly	Gly	Lys	Thr	Asp	Glu	Pro	Lys	Gly	Lys	Thr
				395					400					405
Glu	Ala	Tyr	Leu	Glu	Ala	Ile	Arg	Lys	Asn	Ile	Glu	Trp	Leu	Lys
				410					415					420
Lys	His	Asp	Lys	Lys	Gly	Asn	Lys	Glu	Asp	Tyr	Asp	Leu	Ser	Lys
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Met	Arg	Asp	Phe	Ile	Asn	Lys	Gln	Ala	Asp	Ala	Tyr	Val	Glu	Lys
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Ser	Ser	Leu												

<210> 151  
 <211> 2598  
 <212> DNA  
 <213> Homo Sapien



<400> 151

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<210> 152

<211> 155

<212> PRT

<213> Homo Sapien

<400> 152

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			35						40					45
Pro	Asn	Arg	Trp	Leu	Asp	Ala	Ser	Leu	Ser	Pro	Val	Ile	Leu	Gly
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Val	Gln	Gly	Gly	Ser	Gln	Cys	Leu	Ser	Cys	Gly	Val	Gly	Gln	Glu
			65						70					75
Pro	Thr	Leu	Thr	Leu	Glu	Pro	Val	Asn	Ile	Met	Glu	Leu	Tyr	Leu
			80						85					90
Gly	Ala	Lys	Glu	Ser	Lys	Ser	Phe	Thr	Phe	Tyr	Arg	Arg	Asp	Met
			95						100					105
Gly	Leu	Thr	Ser	Ser	Phe	Glu	Ser	Ala	Ala	Tyr	Pro	Gly	Trp	Phe
			110						115					120
Leu	Cys	Thr	Val	Pro	Glu	Ala	Asp	Gln	Pro	Val	Arg	Leu	Thr	Gln
			125						130					135
Leu	Pro	Glu	Asn	Gly	Gly	Trp	Asn	Ala	Pro	Ile	Thr	Asp	Phe	Tyr
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Phe	Gln	Gln	Cys	Asp										
			155											

<210> 153

<211> 1152

<212> DNA

<213> Homo Sapien

<400> 153

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tggctgataa caacacagac gttcgtctca ttggggagaa actgttccac 300

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cc 1152

<210> 154

<211> 179

<212> PRT

<213> Homo Sapien

<400> 154

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				20					25					30
Gly	Ala	Ala	Ala	Pro	Ile	Ser	Ser	His	Cys	Arg	Leu	Asp	Lys	Ser
				35					40					45
Asn	Phe	Gln	Gln	Pro	Tyr	Ile	Thr	Asn	Arg	Thr	Phe	Met	Leu	Ala
				50					55					60
Lys	Glu	Ala	Ser	Leu	Ala	Asp	Asn	Asn	Thr	Asp	Val	Arg	Leu	Ile
				65					70					75
Gly	Glu	Lys	Leu	Phe	His	Gly	Val	Ser	Met	Ser	Glu	Arg	Cys	Tyr
				80					85					90
Leu	Met	Lys	Gln	Val	Leu	Asn	Phe	Thr	Leu	Glu	Glu	Val	Leu	Phe
				95					100					105
Pro	Gln	Ser	Asp	Arg	Phe	Gln	Pro	Tyr	Met	Gln	Glu	Val	Val	Pro
				110					115					120

Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu
				125					130					135
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp
				140					145					150
Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly
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Glu	Leu	Asp	Leu	Leu	Phe	Met	Ser	Leu	Arg	Asn	Ala	Cys	Ile	
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<210> 155  
 <211> 1320  
 <212> DNA  
 <213> Homo Sapien

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gctggtgtcc tgtcattttc tctcaggaaa ggttttcaaa gttctgcca 1050  
 tttctggagg ccaccactcc tgtctcttcc tcttttccca tcccctgcta 1100  
 ccctggccca gcacaggcac tttctagata tttccccctt gctggagaag 1150  
 aaagagcccc tggttttatt tgtttgttta ctcatcactc agtgagcatc 1200  
 tactttgggt gcattctagt gtagttacta gtcttttgac atggatgatt 1250  
 ctgaggagga agctgttatt gaatgtatag agatttatcc aaataaatat 1300  
 ctttatttaa aaatgaaaaa 1320

<210> 156

<211> 177

<212> PRT

<213> Homo Sapien

<400> 156

Met	Arg	Glu	Arg	Pro	Arg	Leu	Gly	Glu	Asp	Ser	Ser	Leu	Ile	Ser
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Leu	Phe	Leu	Gln	Val	Val	Ala	Phe	Leu	Ala	Met	Val	Met	Gly	Thr
			20					25					30	
His	Thr	Tyr	Ser	His	Trp	Pro	Ser	Cys	Cys	Pro	Ser	Lys	Gly	Gln
			35					40					45	
Asp	Thr	Ser	Glu	Glu	Leu	Leu	Arg	Trp	Ser	Thr	Val	Pro	Val	Pro
			50					55					60	
Pro	Leu	Glu	Pro	Ala	Arg	Pro	Asn	Arg	His	Pro	Glu	Ser	Cys	Arg
			65					70					75	
Ala	Ser	Glu	Asp	Gly	Pro	Leu	Asn	Ser	Arg	Ala	Ile	Ser	Pro	Trp
			80					85					90	
Arg	Tyr	Glu	Leu	Asp	Arg	Asp	Leu	Asn	Arg	Leu	Pro	Gln	Asp	Leu
			95					100					105	
Tyr	His	Ala	Arg	Cys	Leu	Cys	Pro	His	Cys	Val	Ser	Leu	Gln	Thr
			110					115					120	
Gly	Ser	His	Met	Asp	Pro	Arg	Gly	Asn	Ser	Glu	Leu	Leu	Tyr	His
			125					130					135	
Asn	Gln	Thr	Val	Phe	Tyr	Arg	Arg	Pro	Cys	His	Gly	Glu	Lys	Gly
			140					145					150	
Thr	His	Lys	Gly	Tyr	Cys	Leu	Glu	Arg	Arg	Leu	Tyr	Arg	Val	Ser
			155					160					165	
Leu	Ala	Cys	Val	Cys	Val	Arg	Pro	Arg	Val	Met	Gly			
			170					175						

<210> 157  
<211> 1515  
<212> DNA  
<213> Homo Sapien

<400> 157  
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cagagtggat gctacaacat gatctaatacc ccggagactt gagggacctc 150  
cgagtagaac ctgttacaac tagtggttgca acaggggact attcaatttt 200  
gatgaatgta agctgggtac tccgggcaga tgccagcatc cgcttggtga 250  
aggccaccaa gatttgtgtg acggggcaaaa gcaacttcca gtcctacagc 300  
tgtgtgaggt gcaattacac agaggccttc cagactcaga ccagaccctc 350  
tggtggtaaa tggacatttt cctacatcgg cttccctgta gagctgaaca 400  
cagtctattt cattggggcc cataatatcc ctaatgcaaa tatgaatgaa 450  
gatggccctt ccatgtctgt gaatttcacc tcaccaggct gcctagacca 500  
cataatgaaa tataaaaaaa agtgtgtcaa ggccggaagc ctgtgggatc 550  
cgaacatcac tgcttgtaag aagaatgagg agacagtaga agtgaacttc 600  
acaaccactc ccctgggaaa cagatacatg gctcttatcc aacacagcac 650  
tatcatcggg ttttctcagg tgtttgagcc acaccagaag aaacaaacgc 700  
gagcttcagt ggtgattcca gtgactgggg atagtgaagg tgctacggtg 750  
cagctgactc catattttcc tacttgtggc agcgactgca tccgacataa 800  
aggaacagtt gtgctctgcc cacaaacagg cgtccctttc cctctggata 850  
acaacaaaag caagccggga ggctggctgc ctctcctcct gctgtctctg 900  
ctggtgcca catgggtgct ggtggcagg atctatctaa tgtggaggca 950  
cgaaaggatc aagaagactt ccttttctac caccacacta ctgccccca 1000  
ttaaggttct tgtggtttac ccatctgaaa tatgtttcca tcacacaatt 1050  
tgttacttca ctgaatttct tcaaaaccat tgcagaagtg aggtcatcct 1100  
tgaaaagtgg cagaaaaaga aaatagcaga gatgggtcca gtgcagtggc 1150  
ttgccactca aaagaaggca gcagacaaaag tcgtcttcct tctttccaat 1200  
gacgtcaaca gtgtgtgcga tggtagctgt ggcaagagcg agggcagtcc 1250  
cagtgagaac totcaagacc tcttccccct tgcctttaac cttttctgca 1300

gtgatctaag aagccagatt catctgcaca aatacgtggg ggtctacttt 1350  
agagagattg atacaaaaga cgattacaat gctctcagtg tctgccccaa 1400  
gtaccacctc atgaaggatg ccaactgcttt ctgtgcagaa cttctccatg 1450  
tcaagcagca ggtgtcagca ggaaaaagat cacaagcctg ccacgatggc 1500  
tgctgctcct tgtag 1515

<210> 158  
<211> 502  
<212> PRT  
<213> Homo Sapien

<400> 158  
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20 25 30  
Ser Pro Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu  
35 40 45  
Arg Asp Leu Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly  
50 55 60  
Asp Tyr Ser Ile Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp  
65 70 75  
Ala Ser Ile Arg Leu Leu Lys Ala Thr Lys Ile Cys Val Thr Gly  
80 85 90  
Lys Ser Asn Phe Gln Ser Tyr Ser Cys Val Arg Cys Asn Tyr Thr  
95 100 105  
Glu Ala Phe Gln Thr Gln Thr Arg Pro Ser Gly Gly Lys Trp Thr  
110 115 120  
Phe Ser Tyr Ile Gly Phe Pro Val Glu Leu Asn Thr Val Tyr Phe  
125 130 135  
Ile Gly Ala His Asn Ile Pro Asn Ala Asn Met Asn Glu Asp Gly  
140 145 150  
Pro Ser Met Ser Val Asn Phe Thr Ser Pro Gly Cys Leu Asp His  
155 160 165  
Ile Met Lys Tyr Lys Lys Lys Cys Val Lys Ala Gly Ser Leu Trp  
170 175 180  
Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu Thr Val Glu  
185 190 195  
Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met Ala Leu



200					205					210				
Ile	Gln	His	Ser	Thr	Ile	Ile	Gly	Phe	Ser	Gln	Val	Phe	Glu	Pro
				215					220					225
His	Gln	Lys	Lys	Gln	Thr	Arg	Ala	Ser	Val	Val	Ile	Pro	Val	Thr
				230					235					240
Gly	Asp	Ser	Glu	Gly	Ala	Thr	Val	Gln	Leu	Thr	Pro	Tyr	Phe	Pro
				245					250					255
Thr	Cys	Gly	Ser	Asp	Cys	Ile	Arg	His	Lys	Gly	Thr	Val	Val	Leu
				260					265					270
Cys	Pro	Gln	Thr	Gly	Val	Pro	Phe	Pro	Leu	Asp	Asn	Asn	Lys	Ser
				275					280					285
Lys	Pro	Gly	Gly	Trp	Leu	Pro	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Val
				290					295					300
Ala	Thr	Trp	Val	Leu	Val	Ala	Gly	Ile	Tyr	Leu	Met	Trp	Arg	His
				305					310					315
Glu	Arg	Ile	Lys	Lys	Thr	Ser	Phe	Ser	Thr	Thr	Thr	Leu	Leu	Pro
				320					325					330
Pro	Ile	Lys	Val	Leu	Val	Val	Tyr	Pro	Ser	Glu	Ile	Cys	Phe	His
				335					340					345
His	Thr	Ile	Cys	Tyr	Phe	Thr	Glu	Phe	Leu	Gln	Asn	His	Cys	Arg
				350					355					360
Ser	Glu	Val	Ile	Leu	Glu	Lys	Trp	Gln	Lys	Lys	Lys	Ile	Ala	Glu
				365					370					375
Met	Gly	Pro	Val	Gln	Trp	Leu	Ala	Thr	Gln	Lys	Lys	Ala	Ala	Asp
				380					385					390
Lys	Val	Val	Phe	Leu	Leu	Ser	Asn	Asp	Val	Asn	Ser	Val	Cys	Asp
				395					400					405
Gly	Thr	Cys	Gly	Lys	Ser	Glu	Gly	Ser	Pro	Ser	Glu	Asn	Ser	Gln
				410					415					420
Asp	Leu	Phe	Pro	Leu	Ala	Phe	Asn	Leu	Phe	Cys	Ser	Asp	Leu	Arg
				425					430					435
Ser	Gln	Ile	His	Leu	His	Lys	Tyr	Val	Val	Val	Tyr	Phe	Arg	Glu
				440					445					450
Ile	Asp	Thr	Lys	Asp	Asp	Tyr	Asn	Ala	Leu	Ser	Val	Cys	Pro	Lys
				455					460					465
Tyr	His	Leu	Met	Lys	Asp	Ala	Thr	Ala	Phe	Cys	Ala	Glu	Leu	Leu
				470					475					480
His	Val	Lys	Gln	Gln	Val	Ser	Ala	Gly	Lys	Arg	Ser	Gln	Ala	Cys

485

490

495

His Asp Gly Cys Cys Ser Leu  
500

&lt;210&gt; 159

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 159

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caagtacttg ctgctgtcga tattggggct tgcctttctg agtgaggcgg 100  
cagctcggaa aatccccaaa gtaggacata cttttttcca aaagcctgag 150  
agttgcccgc ctgtgccagg aggtagtatg aagcttgaca ttggcatcat 200  
caatgaaaac cagcgcgttt ccatgtcacg taacatcgag agccgctcca 250  
cctccccctg gaattacact gtcacttggg accccaaccg gtaccctctg 300  
gaagttgtac aggcccagtg taggaacttg ggctgcatca atgctcaagg 350  
aaaggaagac atctccatga attccgttcc catccagcaa gagaccctgg 400  
tcgtccggag gaagcaccaa ggctgctctg tttctttcca gttggagaag 450  
gtgctggtga ctgttggtg cacctgcgtc acccctgtca tccaccatgt 500  
gcagtaagag gtgcatatcc actcagctga agaag 535

&lt;210&gt; 160

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 160

Met	Thr	Val	Lys	Thr	Leu	His	Gly	Pro	Ala	Met	Val	Lys	Tyr	Leu
1					5					10				15
Leu	Leu	Ser	Ile	Leu	Gly	Leu	Ala	Phe	Leu	Ser	Glu	Ala	Ala	Ala
				20					25					30
Arg	Lys	Ile	Pro	Lys	Val	Gly	His	Thr	Phe	Phe	Gln	Lys	Pro	Glu
				35					40					45
Ser	Cys	Pro	Pro	Val	Pro	Gly	Gly	Ser	Met	Lys	Leu	Asp	Ile	Gly
				50					55					60
Ile	Ile	Asn	Glu	Asn	Gln	Arg	Val	Ser	Met	Ser	Arg	Asn	Ile	Glu
				65					70					75
Ser	Arg	Ser	Thr	Ser	Pro	Trp	Asn	Tyr	Thr	Val	Thr	Trp	Asp	Pro
				80					85					90

Asn	Arg	Tyr	Pro	Ser	Glu	Val	Val	Gln	Ala	Gln	Cys	Arg	Asn	Leu
				95					100					105
Gly	Cys	Ile	Asn	Ala	Gln	Gly	Lys	Glu	Asp	Ile	Ser	Met	Asn	Ser
			110						115					120
Val	Pro	Ile	Gln	Gln	Glu	Thr	Leu	Val	Val	Arg	Arg	Lys	His	Gln
			125						130					135
Gly	Cys	Ser	Val	Ser	Phe	Gln	Leu	Glu	Lys	Val	Leu	Val	Thr	Val
			140						145					150
Gly	Cys	Thr	Cys	Val	Thr	Pro	Val	Ile	His	His	Val	Gln		
			155						160					

<210> 161  
 <211> 2380  
 <212> DNA  
 <213> Homo Sapien

<400> 161  
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 gtcaggactc ccaggacaga gagtgcacaa actaccacgc acagccccct 100  
 ccgccccctc tggaggctga agagggattc cagccccctgc caccacaga 150  
 cacgggctga ctgggggtgc tgccccctt gggggggggc agcacagggc 200  
 ctcaggcctg ggtgccacct ggcacctaga agatgcctgt gccctgggtc 250  
 ttgctgtcct tggcactggg ccgaagccca gtggtccttt ctctggagag 300  
 gcttgtgggg cctcaggacg ctaccactg ctctccgggc ctctcctgcc 350  
 gcctctggga cagtgcata ctctgcctgc ctggggacat cgtgcctgct 400  
 ccgggccccg tgctggcgcc tacgcactg cagacagagc tggtgctgag 450  
 gtgccagaag gagaccgact gtgacctctg tctgcgtgtg gctgtccact 500  
 tggccgtgca tgggcactgg gaagagcctg aagatgagga aaagtgtgga 550  
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 ccaagtcgtg ctctccttcc aggcctacc tactgcccgc tgcgtcctgc 650  
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 ctggctctat actcagccca ggtacgagaa ggaactcaac cacacacagc 800  
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ctggaccgca gatcattacc ttgaaccaca cagacctggt tccctgcctc 1000  
 tgtattcagg tgtggcctct ggaacctgac tccgttagga cgaacatctg 1050  
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 gactgcgact gctgacctg cagagctggc tgctggacgc accgtgctcg 1150  
 ctgcccgcag aagcggcact gtgctggcgg gctccgggtg gggaccctg 1200  
 ccagccactg gtcccaccgc ttctctggga gaacgtcact gtggacaagg 1250  
 ttctcgagtt cccattgctg aaaggccacc ctaacctctg tgttcaggtg 1300  
 aacagctcgg agaagctgca gctgcaggag tgcttggtgg ctgactccct 1350  
 ggggcctctc aaagacgatg tgctactggt ggagacacga ggcccccagg 1400  
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 cctgcagtca ggccagtgtc tgcagctatg ggacgatgac ttgggagcgc 1550  
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 ccacccggac gccgtaccg cccttttccg caccgtgcc gtcttcacac 2150  
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 ccgcgttccg ggcggtccca agagagagcg gagcaagtgt cccgggccct 2250  
 tcagccagcc ctggatagct acttccatcc cccggggact cccgcgccgg 2300  
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ataaaggcag acgctgtttt tctaaaaaaa 2380

<210> 162

<211> 705

<212> PRT

<213> Homo Sapien

<400> 162

Met	Pro	Val	Pro	Trp	Phe	Leu	Leu	Ser	Leu	Ala	Leu	Gly	Arg	Ser
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Pro	Val	Val	Leu	Ser	Leu	Glu	Arg	Leu	Val	Gly	Pro	Gln	Asp	Ala
			20						25					30

Thr	His	Cys	Ser	Pro	Gly	Leu	Ser	Cys	Arg	Leu	Trp	Asp	Ser	Asp
			35						40					45

Ile	Leu	Cys	Leu	Pro	Gly	Asp	Ile	Val	Pro	Ala	Pro	Gly	Pro	Val
			50						55					60

Leu	Ala	Pro	Thr	His	Leu	Gln	Thr	Glu	Leu	Val	Leu	Arg	Cys	Gln
			65						70					75

Lys	Glu	Thr	Asp	Cys	Asp	Leu	Cys	Leu	Arg	Val	Ala	Val	His	Leu
			80						85					90

Ala	Val	His	Gly	His	Trp	Glu	Glu	Pro	Glu	Asp	Glu	Glu	Lys	Phe
			95						100					105

Gly	Gly	Ala	Ala	Asp	Ser	Gly	Val	Glu	Glu	Pro	Arg	Asn	Ala	Ser
			110						115					120

Leu	Gln	Ala	Gln	Val	Val	Leu	Ser	Phe	Gln	Ala	Tyr	Pro	Thr	Ala
			125						130					135

Arg	Cys	Val	Leu	Leu	Glu	Val	Gln	Val	Pro	Ala	Ala	Leu	Val	Gln
			140						145					150

Phe	Gly	Gln	Ser	Val	Gly	Ser	Val	Val	Tyr	Asp	Cys	Phe	Glu	Ala
			155						160					165

Ala	Leu	Gly	Ser	Glu	Val	Arg	Ile	Trp	Ser	Tyr	Thr	Gln	Pro	Arg
			170						175					180

Tyr	Glu	Lys	Glu	Leu	Asn	His	Thr	Gln	Gln	Leu	Pro	Ala	Leu	Pro
			185						190					195

Trp	Leu	Asn	Val	Ser	Ala	Asp	Gly	Asp	Asn	Val	His	Leu	Val	Leu
			200						205					210

Asn	Val	Ser	Glu	Glu	Gln	His	Phe	Gly	Leu	Ser	Leu	Tyr	Trp	Asn
			215						220					225

Gln	Val	Gln	Gly	Pro	Pro	Lys	Pro	Arg	Trp	His	Lys	Asn	Leu	Thr
			230						235					240

Gly	Pro	Gln	Ile	Ile	Thr	Leu	Asn	His	Thr	Asp	Leu	Val	Pro	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

245							250							255						
Leu	Cys	Ile	Gln	Val	Trp	Pro	Leu	Glu	Pro	Asp	Ser	Val	Arg	Thr						
				260					265					270						
Asn	Ile	Cys	Pro	Phe	Arg	Glu	Asp	Pro	Arg	Ala	His	Gln	Asn	Leu						
				275					280					285						
Trp	Gln	Ala	Ala	Arg	Leu	Arg	Leu	Leu	Thr	Leu	Gln	Ser	Trp	Leu						
				290					295					300						
Leu	Asp	Ala	Pro	Cys	Ser	Leu	Pro	Ala	Glu	Ala	Ala	Leu	Cys	Trp						
				305					310					315						
Arg	Ala	Pro	Gly	Gly	Asp	Pro	Cys	Gln	Pro	Leu	Val	Pro	Pro	Leu						
				320					325					330						
Ser	Trp	Glu	Asn	Val	Thr	Val	Asp	Lys	Val	Leu	Glu	Phe	Pro	Leu						
				335					340					345						
Leu	Lys	Gly	His	Pro	Asn	Leu	Cys	Val	Gln	Val	Asn	Ser	Ser	Glu						
				350					355					360						
Lys	Leu	Gln	Leu	Gln	Glu	Cys	Leu	Trp	Ala	Asp	Ser	Leu	Gly	Pro						
				365					370					375						
Leu	Lys	Asp	Asp	Val	Leu	Leu	Leu	Glu	Thr	Arg	Gly	Pro	Gln	Asp						
				380					385					390						
Asn	Arg	Ser	Leu	Cys	Ala	Leu	Glu	Pro	Ser	Gly	Cys	Thr	Ser	Leu						
				395					400					405						
Pro	Ser	Lys	Ala	Ser	Thr	Arg	Ala	Ala	Arg	Leu	Gly	Glu	Tyr	Leu						
				410					415					420						
Leu	Gln	Asp	Leu	Gln	Ser	Gly	Gln	Cys	Leu	Gln	Leu	Trp	Asp	Asp						
				425					430					435						
Asp	Leu	Gly	Ala	Leu	Trp	Ala	Cys	Pro	Met	Asp	Lys	Tyr	Ile	His						
				440					445					450						
Lys	Arg	Trp	Ala	Leu	Val	Trp	Leu	Ala	Cys	Leu	Leu	Phe	Ala	Ala						
				455					460					465						
Ala	Leu	Ser	Leu	Ile	Leu	Leu	Leu	Lys	Lys	Asp	His	Ala	Lys	Gly						
				470					475					480						
Trp	Leu	Arg	Leu	Leu	Lys	Gln	Asp	Val	Arg	Ser	Gly	Ala	Ala	Ala						
				485					490					495						
Arg	Gly	Arg	Ala	Ala	Leu	Leu	Leu	Tyr	Ser	Ala	Asp	Asp	Ser	Gly						
				500					505					510						
Phe	Glu	Arg	Leu	Val	Gly	Ala	Leu	Ala	Ser	Ala	Leu	Cys	Gln	Leu						
				515					520					525						
Pro	Leu	Arg	Val	Ala	Val	Asp	Leu	Trp	Ser	Arg	Arg	Glu	Leu	Ser						

530	535	540
Ala Gln Gly Pro Val Ala Trp Phe His	Ala Gln Arg Arg Gln Thr	
545	550	555
Leu Gln Glu Gly Gly Val Val Val Leu	Leu Phe Ser Pro Gly Ala	
560	565	570
Val Ala Leu Cys Ser Glu Trp Leu Gln	Asp Gly Val Ser Gly Pro	
575	580	585
Gly Ala His Gly Pro His Asp Ala Phe	Arg Ala Ser Leu Ser Cys	
590	595	600
Val Leu Pro Asp Phe Leu Gln Gly Arg	Ala Pro Gly Ser Tyr Val	
605	610	615
Gly Ala Cys Phe Asp Arg Leu Leu His	Pro Asp Ala Val Pro Ala	
620	625	630
Leu Phe Arg Thr Val Pro Val Phe Thr	Leu Pro Ser Gln Leu Pro	
635	640	645
Asp Phe Leu Gly Ala Leu Gln Gln Pro	Arg Ala Pro Arg Ser Gly	
650	655	660
Arg Leu Gln Glu Arg Ala Glu Gln Val	Ser Arg Ala Leu Gln Pro	
665	670	675
Ala Leu Asp Ser Tyr Phe His Pro Pro	Gly Thr Pro Ala Pro Gly	
680	685	690
Arg Gly Val Gly Pro Gly Ala Gly Pro	Gly Ala Gly Asp Gly Thr	
695	700	705

<210> 163  
 <211> 2478  
 <212> DNA  
 <213> Homo Sapien

<400> 163  
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 tgagatcgat tcagatgatt gttcatccta cccccacgcc aatccgtgca 150  
 ggcgatggcc accggctaac cctggaagac atcttccatg acctgttcta 200  
 ccacttagag ctccaggtca accgcaccta ccaaatgcac cttggaggga 250  
 agcagagaga atatgagttc ttccggcctga cccctgacac agagttcctt 300  
 ggcaccatca tgatttgcgt tcccacctgg gcccaaggaga gtgcccccta 350  
 catgtgccga gtgaagacac tgccagaccg gacatggacc tactccttct 400

ccggagcctt cctgttctcc atgggcttcc tcgtcgagc actctgctac 450  
 ctgagctaca gatatgtcac caagccgcct gcacctcca actccctgaa 500  
 cgtccagcga gtccctgactt tccagccgct gcgcttcac caggagcacg 550  
 tcctgatccc tgtctttgac ctccagcggcc ccagcagtct ggcccagcct 600  
 gtccagtact ccagatcag ggtgtctgga ccaggggagc ccgcaggagc 650  
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 tctccatcct ccagccctcc aacgtgccac ctccccagat cctctcccca 750  
 ctgtcctatg ccccaaagc tgcccctgag gtcggggcccc catcctatgc 800  
 acctcaggtg acccccgaag ctcaattccc attctacgcc ccacaggcca 850  
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 tggcctccct cctatggggt atgcatggaa ggttctggca aagactcccc 950  
 cactgggaca ctttctagtc ctaaacacct taggcctaaa ggtcagcttc 1000  
 agaaagagcc accagctgga agctgcatgt taggtggcct ttctctgcag 1050  
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 ccagcccctg gggatttgca cagacagaac atctgacca aatgtgctac 1150  
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 ccccatcct ggccagtttc acaatctagc tcgacagagc atgaggcccc 1850



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 aggccctggaa aagaaccaga aggaggctgg gcagaaccag aacaacctgc 1950  
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<210> 164

<211> 574

<212> PRT

<213> Homo Sapien

<400> 164

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His	Ala	Pro	Glu	Asp	Pro	Ser	Asp	Leu	Leu	Gln	His	Val	Lys	Phe
				20					25					30
Gln	Ser	Ser	Asn	Phe	Glu	Asn	Ile	Leu	Thr	Trp	Asp	Ser	Gly	Pro
				35					40					45
Glu	Gly	Thr	Pro	Asp	Thr	Val	Tyr	Ser	Ile	Glu	Tyr	Lys	Thr	Tyr
				50					55					60
Gly	Glu	Arg	Asp	Trp	Val	Ala	Lys	Lys	Gly	Cys	Gln	Arg	Ile	Thr
				65					70					75
Arg	Lys	Ser	Cys	Asn	Leu	Thr	Val	Glu	Thr	Gly	Asn	Leu	Thr	Glu
				80					85					90
Leu	Tyr	Tyr	Ala	Arg	Val	Thr	Ala	Val	Ser	Ala	Gly	Gly	Arg	Ser
				95					100					105
Ala	Thr	Lys	Met	Thr	Asp	Arg	Phe	Ser	Ser	Leu	Gln	His	Thr	Thr
				110					115					120
Leu	Lys	Pro	Pro	Asp	Val	Thr	Cys	Ile	Ser	Lys	Val	Arg	Ser	Ile

				125				130				135			
Gln	Met	Ile	Val	His	Pro	Thr	Pro	Thr	Pro	Ile	Arg	Ala	Gly	Asp	
				140					145					150	
Gly	His	Arg	Leu	Thr	Leu	Glu	Asp	Ile	Phe	His	Asp	Leu	Phe	Tyr	
				155					160					165	
His	Leu	Glu	Leu	Gln	Val	Asn	Arg	Thr	Tyr	Gln	Met	His	Leu	Gly	
				170					175					180	
Gly	Lys	Gln	Arg	Glu	Tyr	Glu	Phe	Phe	Gly	Leu	Thr	Pro	Asp	Thr	
				185					190					195	
Glu	Phe	Leu	Gly	Thr	Ile	Met	Ile	Cys	Val	Pro	Thr	Trp	Ala	Lys	
				200					205					210	
Glu	Ser	Ala	Pro	Tyr	Met	Cys	Arg	Val	Lys	Thr	Leu	Pro	Asp	Arg	
				215					220					225	
Thr	Trp	Thr	Tyr	Ser	Phe	Ser	Gly	Ala	Phe	Leu	Phe	Ser	Met	Gly	
				230					235					240	
Phe	Leu	Val	Ala	Val	Leu	Cys	Tyr	Leu	Ser	Tyr	Arg	Tyr	Val	Thr	
				245					250					255	
Lys	Pro	Pro	Ala	Pro	Pro	Asn	Ser	Leu	Asn	Val	Gln	Arg	Val	Leu	
				260					265					270	
Thr	Phe	Gln	Pro	Leu	Arg	Phe	Ile	Gln	Glu	His	Val	Leu	Ile	Pro	
				275					280					285	
Val	Phe	Asp	Leu	Ser	Gly	Pro	Ser	Ser	Leu	Ala	Gln	Pro	Val	Gln	
				290					295					300	
Tyr	Ser	Gln	Ile	Arg	Val	Ser	Gly	Pro	Arg	Glu	Pro	Ala	Gly	Ala	
				305					310					315	
Pro	Gln	Arg	His	Ser	Leu	Ser	Glu	Ile	Thr	Tyr	Leu	Gly	Gln	Pro	
				320					325					330	
Asp	Ile	Ser	Ile	Leu	Gln	Pro	Ser	Asn	Val	Pro	Pro	Pro	Gln	Ile	
				335					340					345	
Leu	Ser	Pro	Leu	Ser	Tyr	Ala	Pro	Asn	Ala	Ala	Pro	Glu	Val	Gly	
				350					355					360	
Pro	Pro	Ser	Tyr	Ala	Pro	Gln	Val	Thr	Pro	Glu	Ala	Gln	Phe	Pro	
				365					370					375	
Phe	Tyr	Ala	Pro	Gln	Ala	Ile	Ser	Lys	Val	Gln	Pro	Ser	Ser	Tyr	
				380					385					390	
Ala	Pro	Gln	Ala	Thr	Pro	Asp	Ser	Trp	Pro	Pro	Ser	Tyr	Gly	Val	
				395					400					405	
Cys	Met	Glu	Gly	Ser	Gly	Lys	Asp	Ser	Pro	Thr	Gly	Thr	Leu	Ser	

410							415				420			
Ser	Pro	Lys	His	Leu	Arg	Pro	Lys	Gly	Gln	Leu	Gln	Lys	Glu	Pro
425							430				435			
Pro	Ala	Gly	Ser	Cys	Met	Leu	Gly	Gly	Leu	Ser	Leu	Gln	Glu	Val
440							445				450			
Thr	Ser	Leu	Ala	Met	Glu	Glu	Ser	Gln	Glu	Ala	Lys	Ser	Leu	His
455							460				465			
Gln	Pro	Leu	Gly	Ile	Cys	Thr	Asp	Arg	Thr	Ser	Asp	Pro	Asn	Val
470							475				480			
Leu	His	Ser	Gly	Glu	Glu	Gly	Thr	Pro	Gln	Tyr	Leu	Lys	Gly	Gln
485							490				495			
Leu	Pro	Leu	Leu	Ser	Ser	Val	Gln	Ile	Glu	Gly	His	Pro	Met	Ser
500							505				510			
Leu	Pro	Leu	Gln	Pro	Pro	Ser	Gly	Pro	Cys	Ser	Pro	Ser	Asp	Gln
515							520				525			
Gly	Pro	Ser	Pro	Trp	Gly	Leu	Leu	Glu	Ser	Leu	Val	Cys	Pro	Lys
530							535				540			
Asp	Glu	Ala	Lys	Ser	Pro	Ala	Pro	Glu	Thr	Ser	Asp	Leu	Glu	Gln
545							550				555			
Pro	Thr	Glu	Leu	Asp	Ser	Leu	Phe	Arg	Gly	Leu	Ala	Leu	Thr	Val
560							565				570			
Gln Trp Glu Ser														

<210> 165  
 <211> 1060  
 <212> DNA  
 <213> Homo Sapien

<400> 165  
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 gtggccacaa catggctgcg gcgccggggc tgctcttctg gctgttcgtg 100  
 ctggggggcgc tctggtgggt cccggggccag tcggatctca gccacggacg 150  
 gcgttttctcg gacctcaaag tgtgcgggga cgaagagtgc agcatgttaa 200  
 tgtaccgtgg gaaagctctt gaagacttca cgggccctga ttgtcgtttt 250  
 gtgaatttta aaaaagggtga cgatgtatat gtctactaca aactggcagg 300  
 gggatccctt gaactttggg ctggaagtgt tgaacacagt tttggatatt 350  
 ttccaaaaga tttgatcaag gtacttcata aatacacgga agaagagcta 400

catattccag cagatgagac agactttgtc tgctttgaag gaggaagaga 450  
tgattttaat agttataatg tagaagagct tttaggatct ttggaactgg 500  
aggactctgt acctgaagag tcgaagaaag ctgaagaagt ttctcagcac 550  
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tgagcccgag gcattcagag ctgattcaga ggatggagaa ggtgctttct 650  
cagagagcac cgaggggctg cagggacagc cctcagctca ggagagccac 700  
cctcacacca gcggtcctgc ggctaacgct cagggagtgc agtcttcgtt 750  
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aaagcagaac tggcaatagt tctcctgcct cgggtggagcg ggagaagaca 850  
gatgcttaca aagtctgaa aacagaaatg agtcagagag gaagtggaca 900  
gtgcggttatt cattacagca aaggatttcg ttggcatcaa aatctaagtt 950  
tgttttacaa agattgtttt tagtactaag ctgccttggc agtttgcatt 1000  
tttgagccaa acaaaaatat attattttcc cttctaagta aaaaaaaaaa 1050  
aaaaaaaaaa 1060

<210> 166  
<211> 303  
<212> PRT  
<213> Homo Sapien

<400> 166  
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Ala Leu Trp Trp Val Pro Gly Gln Ser Asp Leu Ser His Gly Arg  
20 25 30  
Arg Phe Ser Asp Leu Lys Val Cys Gly Asp Glu Glu Cys Ser Met  
35 40 45  
Leu Met Tyr Arg Gly Lys Ala Leu Glu Asp Phe Thr Gly Pro Asp  
50 55 60  
Cys Arg Phe Val Asn Phe Lys Lys Gly Asp Asp Val Tyr Val Tyr  
65 70 75  
Tyr Lys Leu Ala Gly Gly Ser Leu Glu Leu Trp Ala Gly Ser Val  
80 85 90  
Glu His Ser Phe Gly Tyr Phe Pro Lys Asp Leu Ile Lys Val Leu  
95 100 105  
His Lys Tyr Thr Glu Glu Glu Leu His Ile Pro Ala Asp Glu Thr  
110 115 120

Asp	Phe	Val	Cys	Phe	Glu	Gly	Gly	Arg	Asp	Asp	Phe	Asn	Ser	Tyr
				125					130					135
Asn	Val	Glu	Glu	Leu	Leu	Gly	Ser	Leu	Glu	Leu	Glu	Asp	Ser	Val
				140					145					150
Pro	Glu	Glu	Ser	Lys	Lys	Ala	Glu	Glu	Val	Ser	Gln	His	Arg	Glu
				155					160					165
Lys	Ser	Pro	Glu	Glu	Ser	Arg	Gly	Arg	Glu	Leu	Asp	Pro	Val	Pro
				170					175					180
Glu	Pro	Glu	Ala	Phe	Arg	Ala	Asp	Ser	Glu	Asp	Gly	Glu	Gly	Ala
				185					190					195
Phe	Ser	Glu	Ser	Thr	Glu	Gly	Leu	Gln	Gly	Gln	Pro	Ser	Ala	Gln
				200					205					210
Glu	Ser	His	Pro	His	Thr	Ser	Gly	Pro	Ala	Ala	Asn	Ala	Gln	Gly
				215					220					225
Val	Gln	Ser	Ser	Leu	Asp	Thr	Phe	Glu	Glu	Ile	Leu	His	Asp	Lys
				230					235					240
Leu	Lys	Val	Pro	Gly	Ser	Glu	Ser	Arg	Thr	Gly	Asn	Ser	Ser	Pro
				245					250					255
Ala	Ser	Val	Glu	Arg	Glu	Lys	Thr	Asp	Ala	Tyr	Lys	Val	Leu	Lys
				260					265					270
Thr	Glu	Met	Ser	Gln	Arg	Gly	Ser	Gly	Gln	Cys	Val	Ile	His	Tyr
				275					280					285
Ser	Lys	Gly	Phe	Arg	Trp	His	Gln	Asn	Leu	Ser	Leu	Phe	Tyr	Lys
				290					295					300

Asp Cys Phe

<210> 167

<211> 2570

<212> DNA

<213> Homo Sapien

<400> 167

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tcgaagtctt gaactccagc cccgcacatc cacgcgcggc acaggcgcgg 200

caggcggcag gtcccggccg aaggcgatgc gcgcaggggg tcgggcagct 250

gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300

attcagagtc gcgggctgcg ccctgggcag aggccgccct cgctccacgc 350  
 aacacctgct gctgccaccg cgcgcgatg agccgcgtgg tctcgctgct 400  
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 tcagcggcca aaaggtgtgt tttgtgact tcaagcatcc ctgctacaaa 500  
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 actgtggatt tcaaagagta ccagaaaaga aagtggcatg gaagtataat 1200  
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 gtctaggaaa tctcttcaga aataagaagc tatttcatta agtgtgatat 1850  
 aaacctcttc aaacatttta cttagaggca aggattgtct aatttcaatt 1900  
 gtgcaagaca tgtgccttat aattattttt agcttaaaat taaacagatt 1950  
 ttgtaataat gtaactttgt taatagggtgc ataaacacta atgcagtcaa 2000  
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 aaaaaaaaaa aaaaaaaaaa 2570

<210> 168  
 <211> 273  
 <212> PRT  
 <213> Homo Sapien

<400> 168  
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 Gly His Gly Ala Phe Cys Arg Arg Val Val Ser Gly Gln Lys Val  
 20 25 30  
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe  
 35 40 45  
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala  
 50 55 60  
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala  
 65 70 75  
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro  
 80 85 90

Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg		
	95	100 105
Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln		
	110	115 120
Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp		
	125	130 135
Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln		
	140	145 150
Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp		
	155	160 165
Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr		
	170	175 180
Glu Pro Glu Ile Asn Pro Thr Ala Pro Val Glu Lys Pro Tyr Leu		
	185	190 195
Thr Asn Gln Pro Gly Asp Thr His Gln Asn Val Val Val Thr Glu		
	200	205 210
Ala Gly Ile Ile Pro Asn Leu Ile Tyr Val Val Ile Pro Thr Ile		
	215	220 225
Pro Leu Leu Leu Leu Ile Leu Val Ala Phe Gly Thr Cys Cys Phe		
	230	235 240
Gln Met Leu His Lys Ser Lys Gly Arg Thr Lys Thr Ser Pro Asn		
	245	250 255
Gln Ser Thr Leu Trp Ile Ser Lys Ser Thr Arg Lys Glu Ser Gly		
	260	265 270

Met Glu Val

<210> 169

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 169

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 170

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe



<400> 170

caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41